

PUBLIC ADMINISTRATION REVIEW

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FEATURED IN THIS ISSUE:

Some Problems of Cost-Plus Contracts, by David B. Johnson

The Breath of Change for Managers, by George E. Bean

Manpower in War and Peace, by Heinz Eulau and William Dickson

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in this number

George E. Bean entered municipal government as an engineer in Milwaukee in 1927. Nine years later he became city manager of Escanaba, Michigan and has since been manager of Pontiac and Grand Rapids, Michigan, Peoria, Illinois, and now San Diego. He is teaching a graduate seminar in public administration at San Diego State College this fall and has lectured at the University of Michigan and Michigan State University. He was president of the International City Managers' Association in 1954 and has published several articles in ICMA's journal, *Public Management*.

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Some Problems of Cost-Plus Contracts

By DAVID B. JOHNSON

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WHERE time is short or costs are unknown and unpredictable, it is impractical for the government to follow its usual procedure of soliciting competitive bids. In these circumstances, cost-plus contracts have been used—most widely during wars but recently in nondefense as well as defense research and development programs. For example, it has been estimated that the Atomic Energy Commission spends more than 80 per cent of its annual budget, currently nearly \$3 billion, under cost-type contracts.¹ What are the effects on costs, incentives, allocation of labor and equipment, and workmanship under such conditions? Does the removal of traditional competitive conditions adversely affect the government interest in getting the most for its dollar?

The general public probably sees the cost-type contract as wasteful, violating principles of competitive bidding. This attitude is often expressed by Congress. It is true that World War I contracts paying cost plus a percentage of the cost resulted in some scandalous waste. But cost-plus-percentage contracts have been prohibited since 1918, and there is no evidence of similarly extensive waste in cost-plus-fixed-fee contracting.

Yet the presumption remains that it must be uneconomical: price competition and the urge to maximize profit make for efficiency and economy; therefore, the absence of these incentives must result in inefficiency and waste. This in fact takes place in at least some instances, testimony of one businessman indicates:

¹ Richard A. Tybout, *Government Contracting in Atomic Energy* (University of Michigan Press, 1956), p. 52.

» On the frontier of public administration, along with programing computers and staffing outer space, is the delegation of operations to private and semi-private organizations by contract. In many instances, tasks are delegated which are so experimental that no firm could submit a feasible bid and the government could not negotiate a reasonable fixed-fee contract. Cost-type contracts have been used widely in such situations since World War II, particularly in the atomic energy field. Here are set out many of the problems of cost-type contracting—some not easily anticipated by the novice—as well as some conclusions about its efficiency.

"The general belief of our corporation has been that it is an insidious thing to get into the habit of operating under CPFF contracts. You can't help letting it be known that you have a CPFF contract, and the general tendency of management and I think of everyone else is to relax a little."²

There is relatively little evidence on these questions, however. The best economic analysis of military purchasing policy appears to be that of John Perry Miller, who concludes that "the merits of the argument that CPFF contracts are conducive to inefficiency are by no means established. In logic they seem persuasive. But there are many who have defended the contrary thesis with considerable vigor. The available evidence on the matter is not conclusive."³

Comparing Cost to Fixed Contracts

In the most exhaustive survey available of

² Quoted in John Perry Miller, *Pricing of Military Procurements* (Yale University Press, 1949) p. 275.

³ *Ibid.*, p. 132. He suggests that a survey "of the different techniques used by various bureaus and technical services to encourage efficiency under these contracts" might suggest ways to improve the administration of CPFF contracts as well as shedding light on "the relative merits of CPFF and other contractual forms, a controversy which has been waged to date largely in the realm of pure speculation."

cost-plus-fixed-fee contracting as practiced by the Atomic Energy Commission (footnote 1), Tybout concluded that the CPFF contract is the best alternative under the peculiar circumstances in the atomic energy program and "perhaps the only feasible answer to the twin constraints of (1) a need for government risk assumption and policy direction and (2) a need for participation by industrial organizations from the private sector of the economy," if one assumes, as he does, that these are genuine needs.⁴ Tybout buttresses his argument with some figures on improvements in productivity at Hanford and Oak Ridge, but his case for cost-plus-fixed-fee contracts in atomic energy, though persuasive, is based only incidentally on quantitative comparisons of the results of such contracting arrangements with results under other conditions.

Most helpful in publicly assessing experience under cost-type contracts would be productivity studies, but security restrictions bar publication of such figures. Although not as meaningful, available labor cost figures are useful for analysis. And in many ways problems of labor expenditures typify over-all problems of economical performance. But even with efficiency-relevant data, there is a question of how much control to assert over private contractors who are employed in order to use their management ability. While there is no percentage of cost fee to motivate waste, there also is no inherent motivation to economize. Nor is it easy to check on the efficiency of operations. A cost contract is very likely to cover work for which there is little or no precedent, so cost comparisons are hard to make with other projects. Nor does it seem feasible for the government to closely oversee all contract activities.

Actually the picture is not as dark as this. Most large cost contracts are let to firms with national reputations which they want to protect. Further, the general performance will show up as the contract is fulfilled and can encourage or inhibit further negotiated government contracts. Another protection is the businessman's proclivity to think and act in a manner which promotes efficiency and his interest in applying the same policies and pro-

cedures which he uses in his other operations. In the area of labor rates, for example, many contractors feel that they must treat employees in their private and government operations equally.

Nevertheless, it is generally assumed that fixed-price contracts are more advantageous to the government than cost-type contracts; that open, competitive bidding brings the lowest price (except perhaps when prices are falling); and that even a negotiated fixed-price contract is advantageous if accurate cost estimates can be made because after a price has been set, the firm has an incentive to cut costs in order to increase its return. But in the case of expensive and novel items of equipment, the prospective seller, whether bidding or negotiating, must provide for contingencies. This is done in the original price as well as through escalation and redetermination clauses. If all contingencies are taken care of, the contract takes on the aspects of a cost-type contract plus a return for risk.

Despite the many advantages of fixed-price contracts, including less administration costs by both government and contractor, cost-type contracts are considered to be a practical necessity in many circumstances.⁵ These include very large construction jobs where competitive bids cannot be obtained because the risks are too great and because construction must begin before design is completed and jobs in which the government is unable to make an accurate estimate of cost. The chief advantages to the government of this kind of contract are in speed of production or construction and in being able to take advantage of advances in technology by making changes as work proceeds.

If fixed-price contracts are not appropriate, the government faces a problem of whether and how to control expenditures. In so doing it must consider not only the problem of economy but of the effects the control will have on the general administration of the work. On the one hand, the government is buying man-

⁴ For an excellent discussion of government purchasing policy and reasons why fixed price contracts may not be feasible in many circumstances, see John Perry Miller, "Military Procurement Policies: World War II and Today," 42 *American Economic Review* 453-475, (May, 1952).

⁵ *Op. cit.*, p. 154.

agement to perform a job and therefore ought not to duplicate that management function. On the other hand, the government is responsible for the judicious expenditure of the taxpayer's money and must assure itself that the contractor, who is spending someone else's money, does not waste it. Where the contract work being performed is a relatively small part of the operations of the contractor and where the government can be assured that the contractor will not depart from practices it has applied in its other operations, complete delegation might be desirable. But even in that situation it may be necessary for the government to review some actions taken by the contractor.

For instance, a contractor may decide to fund his pension plan for past service credits earned by employees before the pension plan was adopted. From the contractor's standpoint, the various operations of the company should be charged proportionate shares of such expense, including the government contract work. But the government attitude will be that funding past service credits, the obligations for which were incurred before the contract was initiated, is not an expense properly allocable to the contract.

Controlling Labor Costs

In some ways labor expense under a cost-type contract is the most difficult aspect of the over-all cost problem. In procurement the government is able to verify that the contractor is soliciting competitive bids or following other procedures designed to obtain the lowest price for standard quality goods. The problem is different in the labor area. Here the government wants to avoid either substandard or wastefully high labor rates. It is a well-recognized principle of public policy that there should be no exploitation of labor in the interests of cutting costs in supplying goods and services to government. Therefore, all government contracts are subject to the standards required by protective labor laws. While minimum standards are mostly a function of law, economy of operations and the application of meaningful standards for review of the level of labor expenditures remain as problems for the government administrative agency.

Setting Wage Standards

The area standard is most often used by the government in judging the suitability of wage rates. In applying such a criterion, ordinarily the recruiting area is surveyed and rates are obtained for key job classifications. The data are then reduced to be used for comparative purposes. But sometimes not enough people can be recruited locally, so rates must be set at the level prevailing where sufficient workers can be recruited. Then local employers, faced with the necessity of raising their own rates or losing employees, will object. Where projects are carried on in isolated areas, with no comparable industrial enterprise within hundreds of miles, the local area rate is meaningless, also.

Another difficulty—sometimes insuperable—has to do with making qualitative comparisons between the same job classifications in different plants. There are other intangibles that add to the difficulty of judging reasonable wage levels, for example fear of unknown radiation hazards in atomic energy. While the general AEC policy is to protect the worker against the risk of radiation rather than to pay more for hazardous conditions, the latter practice has never been completely eliminated. Another factor is regularity of employment. Atomic energy work is not subject to seasonal or cyclical influences, but plant obsolescence has eliminated jobs. Employment in one Oak Ridge plant, for example, dropped from a peak of 22,000 in 1945 to 3,000 in 1947 as a result of abandonment of a process for separating the fissionable isotope of uranium.

Union-Management Negotiations

Among the greatest problems in reviewing the acceptability of the level of labor expenditures is what to do about the terms of negotiated settlements between contractors and their unions. If the government agency adopts a hands-off attitude in this area in order not to interfere with the freedom of collective bargaining, what is to prevent the employer from negotiating extravagant conditions in order to insure labor peace? If the government insists on approving the conditions negotiated before putting them into effect, is this not an interference with collective bargaining and the exercise of management initiative which the cost contract antic-

ipates will be exercised by the contractor? This aspect of cost contract administration presents problems which continually plague government, employers, and labor.

While contractors complain of limitations on their freedom of maneuver in negotiations imposed by the requirement of government approval, unions complain that the government is in league with the contractors against them and that in any case contractors under a cost contract have no economic compulsion to settle a labor dispute because they have nothing to lose. This is especially true when the contract contains a clause indemnifying the contractor against loss, as many do, including loss from strikes.⁶

If the government procurement agency does not retain some kind of control over the results of collective bargaining under a cost-type contract, the government agency may be derelict in its duty to protect the economy of government expenditures. But if it intervenes, it runs the danger of interfering with the free collective bargaining contemplated by federal labor law, and risks the wrath of the labor movement. Recently, for example, the International Association of Machinists complained that Pentagon procurement directives gave "procurement officers at every establishment authority to decide what a company can provide its own employees in the way of health and welfare plans, vacations, rates of pay, smoking periods, overtime and other working rules that, under the law, are supposed to be set by collective bargaining."⁷

The Atomic Energy Commission started out by intervening substantially in the fixing of wages and benefits. But as time passed and more and more of the employees of its contractors have organized themselves into unions, AEC intervention has lessened. Current AEC policy states:

Wages, Salaries and Employee Benefits—Wages, salaries, and employee benefits on cost-type contracts shall be administered in a manner designed to adapt normal industry practices and conditions to the contract work and to provide for appropriate review by AEC. Area practices, valid patterns, and well-established commercial or academic practices of the contractors, as appropriate,

form the criteria for the establishment and adjustment of compensation schedules.

Subject to the above, the aspects of wages, hours and working conditions which are the substance of collective bargaining in normal organized industries will be left to the orderly and peaceful processes of negotiation and agreement between AEC contractor managements and employee representatives with maximum possible freedom from Government interference.⁸

This policy, in effect, provides for government approval of negotiated employment conditions in any case where the conditions negotiated are in accordance with area practice, valid patterns, or well-established company (or university) practice. This means approval of any conditions which can be reasonably supported under these criteria.

Left open by the policy is the government's role in case of a dispute between contractor and union. The AEC has always encouraged use of outside mediation agencies but also has a special panel for the settlement of critical conflicts. In such disputes, the Commission, in effect, delegates its approval authority to this panel.⁹

Wage Levels Compared

These then are the problems of setting ordinary wage scales. (Some extraordinary labor problems are described below.) What have been the practical results for the level of labor expenditures under cost-type contracts? Although productivity figures are not available, the Atomic Energy Commission does have statistics on the level of labor expenditures by its contractors. Most notable among these are the earnings of production and related workers which have been calculated monthly since 1952 for a large sample of its cost-type contractors. These figures are

⁶ General Policy Statement of the U. S. Atomic Energy Commission relative to Contractor Personnel Management and Labor Relations, August, 1958.

⁷ For a discussion of this aspect of administration of cost-type contracts, see Keith Mann, "The Emergency is Normal—Atomic Energy," in Bernstein et al., ed., *Emergency Disputes and National Policy*, (Harper and Brothers, 1955) pp. 166-169; Oscar S. Smith, "Obligations of Government as Owner, Financier and Consumer in Relation to Collective Bargaining," 7 *Labor Law Journal* 684 (1956); for an earlier account of the creation of the panel device, see Donald B. Straus, *The Development of a Policy for Industrial Peace in Atomic Energy* (National Planning Association, Planning Pamphlet No. 71, 1950).

⁸ Tybout, *op. cit.*, pp. 72-74.

⁹ 13 *The Machinist* 3 (October 16, 1958).

Table I

Straight Time Hourly Earnings and Weekly Hours of Atomic Energy Contractor Employees and Employees in Selected Industries

Year	Atomic Energy Contractors	Industrial Inorganic Chemicals	Products of Petroleum and Coal	All Manufacturing
Straight Time Hourly Earnings				
1952	1.89	1.81	2.02	1.62
1953	2.05	1.94	2.14	1.72
1954	2.16	2.04	2.20	1.77
1955	2.24	2.13	2.28	1.82
1956	2.36	2.24	2.47	1.91
1957	2.48	2.35	2.59	2.01
1958	2.60	2.48	2.69	2.09
Weekly Hours				
1952	41.8	41.0	40.6	40.7
1953	41.1	41.2	40.8	40.5
1954	40.7	40.8	40.8	39.7
1955	40.8	40.9	41.1	40.7
1956	40.9	41.1	41.1	40.4
1957	40.6	41.0	40.9	39.8
1958	40.9	40.9	40.5	39.2

calculated in the same manner as those released by the Bureau of Labor Statistics in its hours and earnings reports for various industries and are directly comparable. Table I compares straight time average hourly earnings and weekly hours (on an annual average basis) for production and related employees of atomic energy contractors with figures reported by BLS for a selection of other industries which have comparable process and equipment.¹⁰

¹⁰ Atomic energy figures in both tables are from the

While atomic energy contractor wage rates are rising significantly more steeply than "all manufacturing," their rise is only very slightly greater than "industrial inorganic chemicals" and almost identical with "products of petroleum and coal." All three of these industries are expanding, and it is to be expected that their wage rates should rise faster than the average of "all manufacturing," which indeed is declining in employment. The increasing rate of wages under the cost contracts in atomic energy compares very closely with increases taking place in these industries operated under normal enterprise conditions. Average weekly hours have been roughly equal.

It would be interesting to compare the level of fringe benefits and the non-economic conditions negotiated in labor contracts in atomic energy with other industries. Unfortunately, although some of these data are available, they are too unwieldy to use with any precision. Turnover figures, however, may provide some indication of employee satisfaction and training expenditure needs. Table II compares turnover of AEC contractors with the same industry categories used in the

Office of Industrial Relations, U. S. Atomic Energy Commission; other figures are from the *Monthly Labor Review*. These figures have been converted from gross hourly earnings figures reported by BLS by using the conversion factors given in "Eliminating Premium Overtime from Hourly Earnings in Manufacturing," 70 *Monthly Labor Review* 537-540, (May, 1950).

Table II
Turnover of Atomic Energy Contractor Employees and Employees in Selected Industries Per 100 Total Employees

	1952	1953	1954	1955	1956	1957	1958
Accessions							
Atomic energy	2.8	2.6	2.1	1.9	1.9	1.5	1.6
Products of petroleum and coal	1.4	1.2	0.8	1.1	1.2	1.1	0.7
Chemicals and allied products	2.4	2.7	1.7	1.8	1.7	1.7	1.3
All manufacturing	4.4	3.9	3.0	3.7	3.4	2.9	3.0
Separations							
Total							
Atomic energy	2.0	2.0	1.3	1.3	1.3	1.4	1.2
Products of petroleum and coal	1.4	1.4	1.1	1.1	1.2	1.4	1.3
Chemicals and allied products	2.6	2.6	1.9	1.7	1.7	1.9	1.8
All manufacturing	4.1	4.3	3.5	3.3	3.5	3.6	3.6
Quits							
Atomic energy	1.4	1.2	0.8	0.8	0.9	0.8	0.7
Products of petroleum and coal	0.7	0.8	0.4	0.5	0.6	0.5	0.3
Chemicals and allied products	1.6	1.7	0.9	1.0	1.0	0.9	0.5
All manufacturing	2.3	2.3	1.1	1.6	1.6	1.4	0.9

earnings comparisons. A slowdown in the growth of the atomic energy program is indicated by the decrease in the accession rate. The total of separations and quits of atomic energy contractor employees maintains a reasonable relationship to accessions when compared with the other industries.

Special Labor and Wage Problems

Even though average straight time earnings under AEC cost-type contracts are not out of line with earnings in other industries, total wage costs often raise special problems. Some of these are rather dramatic, as the case of the \$756 per week plumber at the Nevada Proving Ground in late 1951. A lump-sum contractor charged that a cost contractor working at the same site was able to bid his employees away by having them work long hours at overtime rates. He claimed it was therefore impossible for him to perform his contract in the required time. This case came to public attention when a newspaper reported that a plumber on the AEC job had been paid "golden time" or double double time and had thereby earned \$756 in one week.

The Joint Committee on Atomic Energy investigated promptly. While there was no "golden time," it was true that the plumber had been paid for 112 hours of work in one week, including two 24-hour stints. These marathon hours resulted from the necessity of completing an installation in time for a series of weapons tests. AEC officials told the Joint Committee that they had realized at the outset that the tight schedule for construction of the facility would require large amounts of premium overtime.¹¹ Presumably this was also known by the lump-sum contractor. However, the isolated location of the project made recruitment of labor difficult. The construction camp was sixty-five miles from Las Vegas, the control center twenty-five miles beyond the camp. Shift work was not feasible because of the difficulties in recruiting additional men and supervisors and because of limited housing space. In the absence of

shift arrangements, the area plumbers agreement provided for double time for all work before 8 a.m. and after 5 p.m.

Completion date for the lump-sum contractor's part of the project was planned for August. In August, he was given a 35-day extension. On September 23, the work was taken away for failure to perform and given to another contractor on a cost-plus basis. In his appeal to the Contract Review Board, the lump-sum contractor claimed he could not recruit and keep employees because of the extravagance of the cost contractors in the vicinity. In answer, AEC claimed that the contractor should have anticipated such difficulties when he calculated his bid. The Contract Review Board later awarded damages to the lump-sum contractor. This case is an extreme example of the difficulty which may be encountered by a lump-sum contractor operating in the vicinity of a cost-type job. Given the need for speed in construction of the facility it is not clear that AEC had any alternative but to do as it did. Such cases do not, however, allay public suspicions about extravagance in cost-type contracting.

Support for Union Opposition

Other labor relations questions have caused problems, also. In one case a union complained that the government was supporting a company's efforts to destroy it. In essence, the complaint was that the contractor was taking too many grievance cases to arbitration. The costs of arbitration proceedings were split evenly between the company and the union. Since the company's arbitration costs were paid by the government, the union was afraid that this practice would be continued until the union's treasury was depleted. A similar issue has been raised repeatedly by the Metal Trades Department of the AFL-CIO, which has urged the AEC to underwrite union costs as well as management's in negotiation, arbitration, and appearances before the Atomic Energy Labor-Management Relations Panel in dispute cases.¹²

¹¹ *Wage Payments at Nevada Test Site*, Hearing before the Joint Committee on Atomic Energy, Congress of the United States, 82nd Cong. 2nd Sess., January 30, 1952, pp. 1-36.

¹² Proceedings of the Forty-eighth Annual Convention of the Metal Trades Department of the American Federation of Labor and Congress of Industrial Organizations, December 2, 1957, page 24. Also, see *Metal Trades Department Bulletin*, January, 1958, page 2.

How far should the government go in reimbursing a contractor's labor relations costs? Obviously the costs of a labor relations department are acceptable. It also seems clear that the government must reimburse the cost of vigorous but legal opposition to union organization if this is the contractor's policy. But a contractor should not be allowed to direct its expenditure of government funds to wrecking unions. Who is capable of drawing the line between what is acceptable and what unacceptable?

What should be done in a case like the following? In its issue of February 8, 1952, the *Hanford Works News*, distributed by the General Electric Company to all its employees at the government installation at Richland, Washington, reprinted from *The Freeman Magazine* an article by former Senator Joseph E. Ball against the union shop. It was published at the time of the Wage Stabilization Board dispute involving the steel companies wherein one of the issues was the union shop. At the end of the article was the following sentence added by the General Electric Company:

If you as an individual citizen should want to express yourself to your government about this, you can do so by sending a wire, letter or postcard to your Congressman in Washington, D. C., (1) telling him whether you think a government agency like the Wage Stabilization Board should or should not now force any individual citizen to join and pay tribute to any union unwillingly, and (2) asking him to report your views quickly to the Wage Stabilization Board.

There was also an editorial elsewhere in the issue deploring possible recommendation of the union shop by WSB in the steel case and urging employees to write to senators or representatives about it.

This incident caused the Hanford Atomic Metal Trades Council, representing the organized GE employees at the Hanford Works, to complain that since AEC paid the cost of printing the newspaper it was improper for the government to pay the costs of printing material of this sort or for the contractor to ask its employees in the newspaper to take a stand against the union shop. In this instance AEC told GE to refrain from publishing any similar articles in the *Hanford Works News* in the future. But was that decision fair to

GE? AEC had contracted with GE to perform work it felt GE could best perform. In doing so it was buying GE management. It is well known that GE management opposes union security provisions. Should it be prevented from expressing views to its atomic energy employees which it expresses freely to employees in its private operations?

Profit-Sharing Without a Profit

Profit sharing plans also are brain teasers. On the one hand, the government employs contractors for their management talent. It wants the contractor to bring his most capable employees to the job. In order to induce this result, the government states that employees should be treated no less favorably on its work than they would be in the commercial operations of the company. The contractor agrees with this view and, if he has a profit-sharing plan, wants it applied to the AEC operation. But this is a nonprofit contract. The fixed fees ordinarily added to costs are nominal in relation either to the government investment or to the annual expenditure of government funds. In many cases the fee in AEC contracts has been \$1.00, the contractor presumably gaining good public relations and knowhow. It is hardly practicable to ask the contractor to contribute a proportionate amount of a nominal fee to the profit sharing plan. Yet there is an inconsistency in paying the contractor an additional sum to be divided among his employees on the cost part of government work when there is no risk under the contract.

The inconsistency is best illustrated by a not-so-hypothetical case: A contractor requested that a profit-sharing plan be extended to employees at work under his cost-type government contract. He stated that during the past five years under the plan each employee in his commercial operations had received a profit sharing bonus of 5 per cent of his annual earnings. The dividend so divided had been derived from a fund obtained by taking 10 per cent of net earnings before taxes. These earnings would otherwise be subject to taxation at the corporate rate of 52 per cent. The profit sharing plan therefore cost the contractor only 48 cents for each dollar distributed. The government was asked to contribute an amount equivalent to 5 per cent of earnings

for each employee on its work at a rate of 100 cents to the dollar. This appears to be an inconsistency inherent in government cost-contract operations which is incapable of any equitable solution for the employers and the government.

Pension Fund Shifts

Contractor pension and retirement plans also present special problems sometimes. In several cases AEC has replaced one contractor at a government-owned plant with another. In such circumstances most employees stay at the installation and are employed by the new contractor. In the absence of some kind of prior arrangement, the portion of employee pension funds contributed by the first employer (indirectly, by the government) reverts to the pension fund, and the employee has to start all over again with the new employer. The most notable case in the atomic energy program was at Hanford when du Pont was replaced by General Electric in 1946. A large number of employees, who did not work for du Pont long enough to get their share out of the fund and who stayed on at the plant rather than moving to du Pont's private operations, lost all their equity in the fund, and the du Pont pension fund gained a huge windfall. This was all perfectly legal and in accord with the terms of the pension plan. The same thing almost occurred when Sandia Corporation replaced the University of California on certain work in 1949, but the California state legislature passed a special

act returning the money which had been contributed to the state pension fund for the affected employees.

Since that time AEC has not approved contractor pension and retirement plans at government-owned, privately-operated installations unless provision is made for protection of the employees' pension equity contribution by the government in the event the project is terminated or the contractor changed. This provision may be for transfer of funds to the new contractor's plan or back to the government where the money can be used to purchase paid-up annuities if no more suitable arrangement can be arrived at.

Conclusions

Judging from the limited evidence available from the atomic energy program, cost-type contracts do not result in extravagant costs. Wage rates are reasonable, given the high labor demand in the program and special conditions created by radiation hazards, the isolation of some of the communities, and the necessity of security clearances for workers. It is to be hoped, however, that when security restrictions can be relaxed, it will be possible to make comparisons of the productivity of atomic energy workers and workers in other industries.

Administratively, the cost-type contract will continue to pose a large number of complex problems in assuring equity for the contractor, the labor force, and the government.

Action—First or Second?

The engineer or planner anxious to get on with a project—say, a new hospital, for which there may indeed be an urgent need—is going to have little sympathy with the interests . . . who will wish to study, before work starts, the whole range of human requirements to be satisfied by the building for many years to come. . . . Similarly, the Government Department which has a lot of work on hand . . . has little time for the man who is not manifestly in step with the march towards the production of adequate decisions and completed cases. He may indeed be thought obstructionist if he goes so far as to suggest that fewer decisions of better quality might not only be more worth while but would mean less "casework" in the next turn of the administrative spiral.

—F. T. Lockwood, "Attitudes in Administration," 36 *Public Administration* 214 (Autumn, 1958).

Competing for Administrative Brainpower

By THOMAS J. DAVY

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How can government improve its efforts to attract and retain more of the outstanding college students for administrative careers in the public service?

One approach to these questions is to discover what college students themselves think about public service careers and what aspects of government have appealed most to outstanding students who did enter. We can also try to find out the satisfactions and disillusionments of outstanding students who have entered government. Finally, we can consider the relative effectiveness of the methods now used to recruit college students.

To obtain information on these matters, a questionnaire survey was made of three groups: (1) the current federal government interns; (2) graduates of the Fels Institute of Local and State Government, University of Pennsylvania, who are active in local and state administration or in closely related work; (3) political science professors who are closely associated with undergraduates.

Of the 195 federal interns surveyed, 59 replied to the questionnaire. The average age of those replying is 28 years; average length of federal service is 2 years. They are in 13 principal departments and agencies. All are college graduates. Their undergraduate majors are quite diverse, but the majority have degrees either in business and economics or in government and history. Almost 50 per cent either have or are now working for a master's degree, most of them in public administration.

One hundred of the 175 Fels Institute graduates active in local and state government re-

► Emphasize the satisfactions of serving the public, convey the sense of accomplishment in public service employment and bring university professors into the recruitment process, young career administrators and professors of political science advised government recruiters through recent surveys. Federal interns and recent graduates of Fels Institute of Local and State Government told their reasons for choosing public service, compared their experience with expectation, and criticized government recruitment. Professors viewed public service through their students' eyes. The survey replies are analyzed here.

plied to the questionnaire. The average age of the respondents is 31½ years; 81 per cent are in local government and 13 per cent in state government; their average length of public service is 6 years. Three of five are in the northeastern part of the country, the rest are fairly well distributed throughout the rest of the country. Most of them hold responsible administrative positions as city managers and assistant city managers, heads and assistant heads of departments. Of the Fels group, 88 per cent have a Master of Governmental Administration degree and the rest have completed most of the degree requirements. Most of them received their undergraduate degrees in political science, business, or engineering. All Fels Scholars received full-tuition scholarships, and the majority received substantial fellowships in addition.

Because of the rigorous selection process for both the federal interns and the Fels local-state group, it is believed that they represent outstanding college students who elect public service as a career.

The third group surveyed was composed of 147 political science professors; 60 at 57 institutions returned questionnaires. The schools are well distributed geographically and by size of enrollment. Many of the respondents stated that they had checked their

NOTE: This paper was presented at the National Conference of the American Society for Public Administration in Washington, D. C., April 3, 1959.

replies with their college placement officers. A number also noted specifically that their replies were personal judgments rather than factual statements. The study assumed that college professors usually are sensitive to the attitudes and career interests of students and that their judgments may provide valuable insights for improving public service recruitment.

Career Attitudes of College Students

The relative prestige of potential occupations among college students probably influences many students when considering the future. What are the predominant attitudes toward public service employment among college students? Over 60 per cent of the political science professors felt that students generally appeared to be unfavorable, skeptical, apathetic, or vague in their attitudes toward the public service. Another 12 per cent indicated that students were only mildly interested in public employment, usually when better opportunities were unavailable. Only 6 per cent of the professors felt that the student body in their schools was favorably disposed toward public service. Approximately 8 per cent of the respondents remarked that though the prestige of public service had been relatively low compared to competing occupations, student interest had increased notably in the last few years. A number of the respondents noted that their judgments reflected primarily the apparent attitudes of political science or social science majors, with whom they had the most contact. This condition probably applies to most of the replies. Since political science majors would probably tend to find government work more interesting and attractive than other majors, these opinions suggest that students who elect public service careers while in school probably do so in the face of rather substantial unsympathetic or neutral attitudes in the student body.

Janowitz, Wright, and Delany in their study of perspectives toward government in the Detroit area¹ and Philip Jacob in his

study of changing values in college² tend to support this observation. Janowitz and his associates found that though the prestige of public employment had increased considerably in the general population since Leonard White's studies in 1929, its reputation was much lower among people with some college or completed college education than among those without such education. "These findings," they said, "raise a strong presumption about the inability of higher education to foster a more balanced evaluation of the prestige of government employment." Professor Jacob also concluded that with the exception of a few institutions there was very little interest in the public service among college students. However, Kelso and Ross concluded from their survey of the attitudes of social science majors toward the Federal Service Entrance Examination that for such majors government work appeared to have as much prestige as nongovernmental work. Almost 55 per cent of their sample felt that government work was either as desirable as or more desirable than other employment.³

The political science professors were also asked about the relative importance of various criteria which college juniors and seniors seemed to use in considering their future occupations. Approximately 88 per cent of the professors checked advancement in status and responsibility as either very important or important; 83 per cent so checked compensation, and 76 per cent checked security. The Cornell Values Survey of college students in 1952, as reported by Jacob, found that their most important qualifications for an ideal job were (1) the opportunity to use their special abilities and aptitudes, and (2) the chance to look forward to a stable, secure future.⁴

Students Motivated toward Public Service

The findings above refer to attitudes among college students generally. What are career attitudes and criteria among students who indicate a positive interest in public service? The Fels local-state group and the federal intern group were asked to identify the aspects

¹ Morris Janowitz, Deil Wright, and William Delany, *Public Administration and the Public—Perspectives toward Government in a Metropolitan Community*, Bureau of Government, Institute of Public Administration, University of Michigan, 1958. Quoted passage is at p. 67.

² Philip E. Jacob, *Changing Values in College*, Harper and Brothers, 1957.

³ H. E. Kelso and Russell M. Ross, "The Federal Service Entrance Examination: A Campus Critique," 19 *Public Personnel Review* 109 (April, 1958).

⁴ Jacob, *op. cit.*, p. 17.

of public service that had attracted them most at the time they decided upon their careers. The five most attractive aspects mentioned by both groups were, in order:

1. The challenge of government; the scope and diversity of its operations; the opportunity for significant, worth while results.
2. The opportunity to serve the public.
3. Good working conditions; security, adequate pay; equal employment opportunity.
4. Opportunity for good jobs permitting professional growth and advancement.
5. Desire to correct dishonest, inefficient government.

There was a high degree of idealism in the motivations of both groups, but especially among those in the local-state group. They wanted to "build a better community," or "serve the public," or "make government more efficient."

The two public service groups were asked to identify the influences that were important in their decision to seek governmental careers. Of the local-state group, 54 per cent said the opportunity for graduate study. (All respondents in this group received graduate scholarships.) Advice of an undergraduate professor was important to 39 per cent, and self-evaluation of interests and capabilities influenced 31 per cent. Among the federal interns, 36 per cent said that disappointment with employment in other occupations was a major factor in their decision to enter public service, and about 19 per cent said that friends in the public service influenced them. Advice of an undergraduate professor, family in the public service, and graduate study opportunity were also significant influences among the federal interns.

The factors mentioned above are not mutually exclusive. Most of the respondents in both groups checked more than one item. In the local-state group, for example, though the majority checked opportunity for graduate study as a factor in their career decision, many of them also checked advice of an undergraduate professor, or school friends and associates, or friends or family in the public service as important influences. The response indicates that the advice of undergraduate professors is an important influence for many students who decide upon public service careers. Related to this point is the finding by Kelso and Ross that the faculty was by far

the best source of information about the FSEE for students. These findings definitely indicate that governmental agencies should adopt the policy of informing college professors as fully as possible about their career and job opportunities. It may be noted that the U. S. Civil Service Commission has recently strengthened its recruitment program in this regard.

A surprisingly high percentage of both groups who elected public service careers (45 per cent) seriously considered such careers prior to college or in the first two years. These findings suggest that a special effort to inform high school teachers and counselors about public employment opportunities would be worth while.

As to competition among levels of government for outstanding students, the political science professors see the federal level as much the most attractive to students who prefer public service careers. Ranked in attractiveness by the professors, the choices were:

Level of Government	Choice			
	1st	2nd	3rd	4th
Foreign Service	60	16	7	10
Other Federal	23	57	12	5
State	3	10	28	43
Municipal	10	10	38	30
Other etc.	3	8	15	12

It is interesting to note that a number of the local-state group stated that the federal level, especially the foreign service, first attracted them to public service. These findings may reflect the fact that undergraduate political science courses tend to emphasize the federal government and international affairs and that for many political science teachers these areas are a dominant interest. Nevertheless, they suggest that state and local governments have a much more difficult task in attracting outstanding college students than does the federal government.

Expectations and Satisfaction

We should not only know the attitudes of students toward government prior to employment but also try to discover the aspects of governmental work they found attractive and unattractive after they entered government. To obtain information on this aspect of recruitment, both the Fels local-state group and the federal intern group were asked to state the differences between their image of the

public service prior to employment and government as they had actually found it, and the aspects of public service they now find most attractive and unattractive.

Almost 36 per cent of the federal interns and 42 per cent of the local-state group either stated that there was no significant difference between their image of the public service prior to employment and government as they have actually found it, or they did not answer the question (probably indicating they had no strong sense of a gulf between expectation and reality). Among others in the local-state group, the five most frequently mentioned differences were:

1. Personality, human relations, adjustment to conflicting values more important than realized.
2. Size and variety of programs and scope of responsibilities greater than expected.
3. Quality of public employees better than expected.
4. Lack of energy, initiative, and imagination, and the security-mindedness of public employees greater than realized (mentioned especially by people in large city and state governments).
5. Political influence more prevalent than realized.

For those federal interns who saw major differences between image and actuality, the differences were:

1. Quality of public employees better than expected.
2. Size and variety of programs and scope of responsibilities greater than expected.
3. Over-centralization, civil service rigidity, and red tape greater than realized.
4. Work more routine and less demanding than expected.

The two public service groups were next asked to specify the aspects of government work they now find most attractive:

Attractive Aspects	Local-State	Federal Interns	Total
General challenge; scope and diversity	49%	12%	32%
Sense of accomplishment	35	17	28
Serving the public	24	19	22
Self-development and advancement	13	37	22
Interesting people; congenial co-workers	25	10	19
Personal recognition and prestige	25	3	17
Pay; fringe benefits; working conditions	10	22	14
Interesting work; intellectual challenge	0	29	11

The response to this question supports the conclusion that in recruitment literature and in counseling students, special stress should be given the challenge and interest of governmental administration, the sense of significance and accomplishment possible in serving the public and in helping to build a better world, and the opportunities for professional growth and advancement. For the public administrator, the response suggests a special responsibility to see that these motivations can be fulfilled by outstanding college students who enter public service.

What aspects of public service are now most unattractive to outstanding college students who have entered it? Among the local-state group, the three most unattractive aspects are: (1) political and other pressures delaying accomplishment (30 per cent), (2) public indifference and criticism (29 per cent), and (3) inadequate pay and fringe benefits (16 per cent). For the federal interns, the repelling aspects are: (1) narrow specialization, inflexible procedures, control emphasis, and rigid personnel rules (70 per cent); (2) emphasis on security and seniority among employees (24 per cent); and (3) inadequate pay and fringe benefits (10 per cent).⁵

Though it is evident from the replies that the morale of both groups is quite high, the degree of frustration and disillusionment because of the political nature of government and the impersonal characteristics of large bureaucracy is rather surprising. One conclusion to be drawn perhaps is that in political science courses, especially at the undergraduate level, we should try to give students a more realistic knowledge and deeper appreciation of government as it actually functions. As Dean Harlan Cleveland⁶ has often said, one of the major responsibilities of the political science teacher is to help his students "fall in love with complexity."

⁵ The responses to the questions regarding attractive and unattractive aspects of public service were free-answer. The summaries given present the principal forms of expression used by the respondents. It is not possible to determine from the replies the extent to which the aspects listed represent discrete, basic values. Probably for many of the respondents, several of the attractive and unattractive aspects they mentioned were different manifestations of the same central value. The significance of the responses is the manner in which college students who enter the public service articulate their satisfactions and dissatisfactions.

Evaluating Recruitment

How does recruitment for the public service in colleges and universities compare with that for other occupations? The political science teachers indicated that in their judgment business and science-engineering were far superior to government in all elements of recruitment: attractive literature, counseling by agency representatives, provision of financial aid for graduate study, and initial pay.

What methods now used for recruiting students for public service are most effective? Approximately 63 per cent of the political science teachers said that their counseling of students was the most effective method. Recruiting methods ranked by professors as best and second best are personal counseling by professors, personal visits and counseling by governmental recruiters, and discussion of public service careers in political science classes. (Considering the source, this might seem a biased judgment. However it is borne out to a large degree by the Kelso-Ross study and the young administrators' estimate of influences on them.) School career days or conferences and field trips to governmental agencies have had relatively less effect, probably because they are used less.

Several of the political science professors and some of the federal interns were rather critical of governmental representatives who spoke to students about the FSEE and management intern programs: "personality tends to dissuade rather than persuade students"; "poorly informed on details students most interested in"; "did not know enough about career opportunities available in specific agencies"; etc. It may be noted also that Kelso and Ross found that only 10 per cent of their sample had had any contact with representatives of the U. S. Civil Service Commission who had visited their schools.

On the question of improving recruitment for public service careers, the political science teachers listed in order of probable effectiveness: (1) increase and improve campus visits and counseling by representatives of governmental agencies; (2) facilitate field trips to governmental agencies at least for the outstanding students; (3) stress in recruitment literature and counseling the dramatic and human aspects of government and the power and prestige of the top career jobs; (4) in-

crease scholarship aid for study of public administration.

For both the local-state and the federal intern groups, the four improvements most frequently suggested—this was a free answer question—were, in order:

1. Build the prestige of the public service generally and among college students in particular by publicizing outstanding accomplishment of public servants and by trying to overcome the public stereotype of the civil servant; a program of publicity along these lines should be developed through the cooperation of governmental agencies, colleges and universities, and professional associations.
2. Increase pay, especially for the higher level jobs; provide geographical pay differentials, raise per diem, and pay moving expenses (these were mentioned by federal interns); establish a system of transferable pensions (mentioned by many of the local-state group).
3. Improve governmental efficiency; extend merit coverage; increase executive and supervisory competence; expedite examining and selection process, especially for management interns. (A significant number of the federal interns proposed that governmental recruiters be authorized to hire outstanding students on the spot or that students who did best on the exams be employed as soon as the results are known.)
4. Let students rub shoulders with outstanding, program-oriented (rather than management-oriented) employees; make personal recruiting in high schools and colleges a regular duty of all principal field officers.

The public service groups also were asked what they would stress most in advising young people about governmental careers. They said they would emphasize: (1) the satisfactions of serving the public and the sense of worthwhile accomplishment; (2) the need for talent, the multiplicity of potential careers, and the opportunities for advancement; and (3) the challenge and excitement that government provides in terms of its scope, variety, and drama. These emphases correspond fairly closely to the aspects of the public service that appealed to them most when they made their own career decisions.

General Conclusions

This study indicates that improvements are needed in the informational services of governments to college teachers and students and to high school teachers and counselors. A

number of the political science teachers expressed the belief that the general lack of interest in public service among students stems not so much from a basic antipathy to government as from lack of information or from preconceptions based upon inadequate information about governmental employment.

General publications on governmental career opportunities, like the International City Managers' Association's *City Management—A Growing Profession*,⁶ Jay B. Westcott's *Government Careers*⁷ and several pamphlets recently published by a number of governmental personnel agencies are useful in this regard and their availability should be more widely publicized.

But perhaps more important than the need to improve the literature about governmental careers is the need to increase the opportunities for outstanding students to obtain first-hand knowledge of government through personal observation and involvement and through personal contact with outstanding public servants. Governmental agencies at all levels could devise programs for regular field trips by college students in their areas. The larger agencies might consider the feasibility of establishing summer internship programs for outstanding students between their junior and senior years, as has been done by the U. S. Department of Agriculture, the National Park Service, and some other agencies. Principal administrators at the three levels of government might assume more responsibility for visiting schools in their areas and for maintaining contact with teachers in these schools, especially those in political science and public administration. It may also be possible in many cases for outstanding career administrators to participate more extensively in seminar and other course discussions.

This study also indicates that recruitment literature and career counseling could be improved by giving greater stress to (1) the importance, scope, and variety of governmental programs, and the interesting nature of the work, (2) career opportunities rather than spe-

cific job opportunities, and (3) the satisfactions to be derived from serving the public and from helping to build a better community.

Finally, in view of the importance of this problem to government and the probability that government will find it increasingly difficult to compete for outstanding college students, more comprehensive research on the attitudes and motivations of students is called for. This study has serious limitations. The replies to the questionnaires by the two public service groups may have involved some degree of rationalization. It is the writer's impression that the responses imply a more directed and definite pattern of thinking about their future occupations among college students than was actually the case. Most students in the writer's experience are much less analytical and definite in their career thinking than this study would suggest. (However, a sample check of the responses of the local-state group against their statements of career interests on their applications for graduate study indicate that their responses to this study are quite similar to the statements made at the time they decided to apply for graduate work in public administration.)

The time and resources available for this study did not allow any sampling of college students who did not elect public service as a career. Nor did they permit any study of the attitudes of students in law, medicine, engineering, and other professions from which a great many governmental administrators come.

We need a major continuing study of student attitudes toward their careers and toward the public service made at various stages in their progress through school and of attitudes of those who enter public service throughout their careers. We should particularly look at attitudes toward government of college students who did not choose public service careers but who entered professions which produce large numbers of governmental program administrators, such as engineers, lawyers, and doctors. Such studies might well be cooperative enterprises of governmental agencies, colleges and universities, and professional associations like the American Society for Public Administration.

⁶ Report of the Committee on Professional Training of the International City Managers' Association, Chicago, 1957.

⁷ Syracuse University Press, 1957.

Improving Managerial Use of Statistics

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CONSIDERABLE effort and costs are spent, both in industry and government, on comprehensive reporting systems whose primary objectives are to produce financial and operational data for management control and decision-making. The uses to which reported data ultimately are put represent management's return on its original reporting system investment. Too frequently, however, despite the extensive efforts exerted in developing the mechanics of reporting systems, relatively little attention is given to whether managers at all levels are making maximum and proper use of reported statistical data. Yet this is the pay-off—or should be.

One organization which effectively has bridged this gap is the Sixth U. S. Army—a major continental Army command responsible for the operations, training, administration, and services and supply for over seventy widely dispersed installations and facilities in the eight western states. This Army has established an in-service statistical analysis training program for military and civilian supervisors at all of its major installations. One of very few such courses for public executives, it has attracted numerous inquiries from civilian and military agencies throughout the world.

The statistical training program was launched in March, 1957. Fifty-three classes have been held throughout the command; 869 persons have completed training requirements. It is estimated that another 800 will be trained in the coming year.

Why the Course Was Needed

For some years, Headquarters Sixth U. S. Army and major subordinate installations have had an extensive program review and

► Statistics provide management with shorthand for efficient reporting and a short cut for fact-finding. Maintaining control of large, complex, decentralized programs demands such aids, and the author gives examples of management weaknesses caused by poor grasp of statistics among business as well as government administrators. To overcome these weaknesses, it is unnecessary to make a statistician of every manager, he observes. A course, described here, has been successful in teaching administrators just enough statistics to improve their work, its content tailored to the needs of large organizations in general and to specific practices of the individual agency.

analysis system which culminates in a comprehensive quarterly briefing to the Army commander. The main objective of the system is to keep the commander and key staff officers currently informed of the status of major missions and activities, of pressing problems which must be resolved, and action that must be taken to accomplish objectives within prescribed time schedules. In this appraisal system, activity directors at both command headquarters and installations are required periodically to prepare and present written and oral progress reports built largely around statistical analyses of operating data. Both the reporting system and the special work of many of the staff require a basic knowledge of statistical techniques.

As part of the continuing effort to improve this Army's program review and analysis system, a study was undertaken to identify the principal shortcomings in staff understanding and use of basic statistical techniques. Examples of improper statistical practices revealed by the study were:

1. Requiring subordinate operating elements to submit voluminous detailed reports containing much routine and static data rather than requiring information which had been filtered and summarized to a size and

form which quickly would apprise top executives of the significant, the problems, and the "exceptions."

2. Performing 100 per cent inspections of operations or items instead of using less costly scientific sampling methods; or, conversely, basing conclusions on nonscientific samples too small for reliability.

3. Using averages, percentages, and rates not truly representative of the data from which they were derived.

4. Poorly designing statistical charts and tables which failed to put across the intended message or gave erroneous impressions.

5. Failing to use statistical devices such as correlation analysis for estimating purposes or index numbers for analyzing the extent of change in an operation from a past period to a current one.

6. Failing to develop statistical bases for planning, production, and control purposes, such as planning factors, trends, performance standards, usage rates, and significant relationships and patterns.

7. Presenting statistical data without meaningful explanations of their significance and impact on program objectives.

The reader will recognize these examples as common shortcomings in virtually all large organizations where personnel are not trained in statistical concepts and techniques. In the Sixth U. S. Army, many staff personnel already were doing a competent job in their use of statistics. Also, some offices, because of their particular missions, were staffed with professional statisticians. But top management wanted to raise the quality of statistical practices of all supervisory personnel throughout the command.

Results Achieved through the Course

There is no simple device—statistical or otherwise—for measuring and expressing the benefits derived from the Sixth U. S. Army's statistical training course. However, significant improvements have occurred within the past year in the progress reporting and statistical analysis efforts of the command, some of which appear to be attributable to the course:

1. Many of the improper statistical practices mentioned above have been corrected.

2. The quality of the periodic formal briefings to the commander and to installation commanders has improved considerably. To illustrate how successfully the "management by exception" reporting principle is employed, the total time allotted for the oral presentations by the principal staff officers at the commanding general's quarterly briefing is only sixty minutes. In view of the magnitude and complexity of the command's missions and operations, one can well imagine the great amount of sorting, digesting, and selecting of reported data that occurs prior to a quarterly briefing.

3. Hundreds of key officials and operating supervisors today are trained in techniques of program review and analysis. Prior to the training course, this technical knowledge was limited to relatively few—primarily those who were staff specialists in this management field. The increased awareness of the managerial dividends of efficient review and analysis has created a new staff attitude and receptiveness towards this management process. As a result, present efforts are concentrated on refining the analysis system rather than on selling operating officials on its merits—as, frankly, was necessary at one time.

4. The reporting of masses of detailed data has been reduced sharply through elimination of unnecessary and "nice-to-know" information that took much time to prepare and review at all levels.

5. Accuracy of reported data has improved greatly through vigorous report audit programs of a continuing nature. As a result, management decisions are based on statistical information with greater confidence than was true in the past.

6. Penetrating analyses of statistical data concerning command operations, in concise language, are being prepared on a much wider scale than before. They relate the status of programs to standards, objectives, and time schedules. Isolated for decision are problem areas requiring corrective action, proposed solutions to problems, resource use and availability (of men, money, supplies, and facilities), and performance trends (rate and quality of production).

Among the most convincing indicators of the effectiveness of the course, so far as its

sponsors are concerned, are these: demand for this training continues, every class has been oversubscribed, and supervisors who have attended send their subordinates to subsequent classes.

Scope of the Course

The course is designed primarily for Army executive, staff, and supervisory personnel who, in the course of their particular jobs, deal with administrative and operational data concerning command activities. Beyond this, there are no other attendance prerequisites, such as education or military rank or civil service grade.

Only statistical methods which are particularly useful in managing Army activities are studied. Little attention is given to theoretical or mathematical refinements which may be essential in developing a professional statistician but are unnecessary in training an executive or supervisor.

Two main blocks of instruction are covered by the course. The first block provides the student with a statistical "tool kit"—principles of basic statistical theory, methods of computing and interpreting data through the use of various statistical measures, and proper methods of presenting data in tabular and graphic form. The second block of instruction covers the over-all concept and specific phases of the Sixth U. S. Army's "Command Management System" (programming, budgeting, performance analysis, accounting), pointing up how the statistical tools taught earlier in the course are applied.

The statistical portion of the course is presented in a nontechnical fashion and requires no prior knowledge of mathematics or statistics.

The specific content and teaching arrangements of the course are outlined at the end of this article.

Conduct of the Course

In-station courses were chosen rather than regular courses in educational institutions for the following reasons (and experience has borne out the soundness of the decision): Many military installations are not located near educational institutions, many college courses in statistics are too broad in scope and

would not be tailored to the specific needs of Army personnel, and sufficient personnel qualified to teach the course are available at installations.

Because of popular aversion to statistics, it was agreed that special methods of instruction had to be used to stimulate interest. As a result, such techniques as humorous illustrations relating to subjects of presentation are injected as frequently as possible. Nothing is taken for granted regarding the student's background in mathematics or analysis. Instructors steer clear of technical statistical terms such as "skewness," "kurtosis," "extrapolation," and the Greek symbols that pop up at every turn, unless essential to the discussion at hand and then only when introduced with proper groundwork.

Another essential ingredient of instruction, it was decided, would be the maximum use of practical exercises. These have proved to be the key to success since they serve as an effective yardstick of how well subject matter is being presented by the instructor and grasped by the student. Also, since the exercises are completed in class, there is no outside work—a distinct advantage for busy staff people.

Following establishment of the statistical training program at Headquarters Sixth U. S. Army and publication of a detailed manual of course instruction, steps were taken to apply the program to major field installations. The headquarters course project coordinator visited each of ten major installations where he explained course objectives to top management personnel and furnished technical guidance to those who would establish it. In addition, a meeting was held with key staff and supervisory personnel on reasons for conducting the course, results achieved at Headquarters, and the benefits to be gained.

At all installations visited, the proposed analysis training program was well accepted by the staff, and strong support by the command and by installation personnel was assured. The fact that Headquarters furnished a package consisting of a detailed instruction manual, visual aids, and handout material proved of great importance in gaining acceptance of the program. Today, all major Sixth U. S. Army installations are conducting classes on a regularly scheduled basis.

Statistical Training Results for Business

Results of a similar course for business executives¹ underline the potential of statistical training in management:

1. An executive of one of the leading West Coast instrument manufacturers stated that class discussions on reporting controls inspired action on his part that led to a 30 per cent reduction in his firm's reporting workload.

2. After class-study of statistical charts, an official of one of the nation's major oil companies realized (and admitted) that for years he had been misinterpreting many company charts which portrayed production trends and operating activities.

3. A key official of an insurance firm, when asked to visualize some possible applications of statistical concepts covered in class, said: "Work sampling methods can be used to distinct advantage over our present traditional measurement methods. Additional analyses could be developed to detect unfavorable loss trends as soon as possible. Charts and statistical tables are playing an increasingly important role in our company's operations, especially in the annual meeting with the stockholders and board of directors; my evaluation of the charts and tables presently used is that most of them are too detailed to tell the story quickly and convincingly."

Many more illustrations of this nature could be cited. They all serve to make one point: Knowledge of statistics must not be left solely to the professional statistician. The increased scope and complexity of business and government activities have brought many administrators face to face with the problem of how to cope with the flood of statistical data they receive. A giant step toward the solution of this problem is possible through the broadening of executive development programs to include courses on managerial statistics. Such an investment is trifling compared to the efforts and costs being consumed by established reporting systems and compared to the management benefits to be reaped through effective use of reported data by administrators.

¹ A course, "Statistical Aids for the Manager," taught by the author, for the University of California Extension Division.

Appendix

COURSE OUTLINE—SIXTH U. S. ARMY STATISTICAL TRAINING PROGRAM

SESSION 1: Objectives and Scope

The application and growing significance of statistical analysis techniques in the military establishment. Introduction to the nature, use and limitations of statistical data. Considerations in the collection and reporting of meaningful data to top management. Control of reporting workloads.

SESSION 2: Percentages and Rates. Organizing Data for Analysis

Computation, use, and limitations of percentages. The formulation of rates and the selection of data for rate computations. Consolidation and grouping of unorganized data in order to determine their significance.

SESSION 3: Averages

Characteristics, advantages, and limitations of the three most commonly used averages.

SESSION 4: Measuring Variation of Data

Methods of measuring to what extent values in a set of data vary from the average. Measures of variation and their use in developing program factors and standards and in establishing evaluation ranges for management control purposes.

SESSION 5: Correlation Analysis. Time Series and Forecasting. Index Numbers

Comparative analysis of data for estimating anticipated workloads and requirements such as manpower and funds; trend analysis.

SESSION 6: Sampling—A Short Cut to Fact-Finding

Determining the characteristics of large amounts of data by studying only a portion of the items. Applications of sampling in Army operations. Work sampling.

SESSION 7: Tabular Presentation of Data

Effective methods of presenting statistical information. Types, construction, and uses of statistical tables.

SESSIONS 8 and 9: Graphic Presentation of Data

Presenting data through charts. Relative advantages and limitations of charts vs. tables. Nature and uses of principal chart types. Uses of the ratio chart and other special chart types in the analysis of personnel and operations.

SESSION 10: Army Command Management Orientation

Objectives and benefits of the Army Command Management System (ACMS).

SESSION 11: Performance Analysis

Development of work measurement in industry and in the Army. Principal steps in developing a work measurement system. Development of performance standards. Uses of performance data.

SESSION 12: The Army Programming System

Program development, program execution, and program review and analysis.

SESSION 13: Accounting Procedures and ACMS Reporting Requirements

Accounting procedures under ACMS. Costing of labor and supplies. Review and internal control of records and procedures. Reporting requirements under ACMS. Cost and performance reports, financial statements, and review and analysis reports.

SESSION 14: Budgeting under the Army Command Management System

Techniques of budget development. Budget administration through cost control, fund control, and procurement schedules.

SESSIONS 15 and 16: Review and Analysis under ACMS

Review and analysis concepts and procedures at Headquarters Sixth U. S. Army and installations.

Practical applications of review and analysis techniques. Cases studies.

The course is conducted by the lecture and discussion method and consists of sixteen sessions of two hours each. Classes are held daily over a three-week period. Lectures are supplemented by selected handouts of published material—topical outlines of lectures, extracts of technical articles by recognized authorities, and publications of the Bureau of the Budget, Department of the Army, and other agencies. In developing some of the lectures, the principal reference text used was *Statistics for Management* by B. J. Mandel. Extensive use is made of visual aids.

Urban Redevelopment, 64 A.D.

After the burning of Rome—some said by the Emperor Nero, Tacitus recorded:

Of Rome meanwhile, so much as was left unoccupied by [Nero's] mansion, was not built up, as it had been after its burning by the Gauls, without any regularity or in any fashion, but with rows of streets according to measurement, with broad thoroughfares, with a restriction on the height of houses, with open spaces, and the further addition of colonnades, as a protection to the frontage of the blocks of tenements. These colonnades Nero promised to erect at his own expense, and to hand over the open spaces, when cleared of the debris to the ground landlords. He also offered rewards proportioned to each person's position and property, and prescribed a period within which they were to obtain them on the completion of so many houses or blocks of building. He fixed on the marshes of Ostia for the reception of the rubbish, and arranged that the ships which had brought up corn by the Tiber, should sail down the river the cargoes of this rubbish. The buildings themselves, to a certain height, were to be solidly constructed, without wooden beams, of stone from Gabii or Alba, that material being impervious to fire. And to provide that the water which individual license had illegally appropriated, might flow in greater abundance in several places for the public use, officers were appointed, and everyone was to have in the open court the means of stopping a fire. Every building, too, was to be enclosed by its own proper wall, not by one common to others. These changes which were liked for their utility, also added beauty to the new city. Some, however, thought that its old arrangement had been more conducive to health, inasmuch as the narrow streets with the elevation of the roofs were not equally penetrated by the sun's heat, while now the open space, unsheltered by any shade, was scorched by a fiercer glow.

—*The Complete Works of Tacitus* (Modern Library edition) pp. 379-380.

Reflections of a Professor Turned Bureaucrat

By JOSEPH M. RAY

*President
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MANY of the concepts the teacher is likely to use in portraying public administration to his students look different when seen from the desk in the middle of a very large government organization. They are not false concepts, but they do lack a good deal of the truth which would help the student to identify his whereabouts when he sits at such a desk. I learned this after giving up teaching to head one of a hundred or so branches—Education and Libraries—in the Headquarters of the U. S. Air Force (usually called Air Staff by those working there).

This branch is one of five or six in the Personnel Services Division, which is one of a number of divisions under the Directorate of Military Personnel headed by the Deputy Chief of Staff for Personnel, who is one of several subordinates of the Air Force Chief of Staff.

The responsibilities of the branch were staff and policy supervision of three programs: education services, which provided off-duty academic education at all levels to military personnel; dependents' schools, which had charge of elementary and secondary schooling for Air Force children wherever their parents were stationed; and libraries at Air Force bases and stations.

In particular, three major concepts of public administration assumed a different texture at the bureaucrat's desk than at the classroom rostrum: delegation, coordination, and control.

Delegation

A university dean wrote a letter to the Deputy Chief of Staff for Personnel asking for

» The outline of public administration looks different when it is filled in with details from experience, writes a veteran of public administration teaching after several years as head of a small unit in one of the nation's largest government agencies. In particular, delegation, coordination, and control have different emphases in the huge Air Force Department than they do in the textbook, he notes. Here are some examples.

fuller support from an overseas commander in providing local transportation for the professors in his program. The professors were teaching for a semester in one place and then were rotated to another. Under such circumstances they could not have private automobiles. If staff car transportation were not available to them as to officers on the air base, the work of the educational program would suffer. The letter was passed down three echelons to the Education and Libraries Branch for action. The dean urged in his letter that Air Force headquarters issue to the overseas area commander specific direction to provide transportation for his professors. The decision so far as the branch was concerned was not difficult to make. In the Air Force, broad delegations of authority and responsibility were made to major air commanders, and specific directions to them were not considered appropriate. A courteous letter to the dean to this effect was prepared and sent back up for the signature of the Deputy Chief of Staff.

On another occasion, the librarian of one of the major commands within the United States visited the headquarters with a request. In the headquarters of the Air Force, off-duty education, dependents' schools, and libraries had been organized in one branch. The librarian's concern was with efforts in her com-

mand headquarters to combine the functions there as they were at headquarters. She did understand that headquarters delegates questions of command organization entirely to the major commands; all she asked was a statement from Air Force headquarters to her command saying that this organization was not necessarily recommended for major commands. This plea was denied on the ground that such a statement would in itself constitute an interference with command autonomy in organizational matters.

In his classroom, the professor had conceived of the power to delegate as lodged in the person of an administrator who passed down a job to a subordinate with instructions that it be done. Much more realistic is the conception of delegation as an institutional agreement which inhibits the higher echelon as much as it frees the lower. The Air Force chief of staff (and of course his deputies and their subordinates) had authority to direct major commanders along any given line. However, in routine administration, Air Staff offices operate within a substantial set of convictions—even taboos—concerning interference with major commands. The chief of staff seldom has felt it necessary to violate these rules on delegation. Thus, in an agency as large as the Air Force, delegation in effect becomes as binding upon the delegator as upon the units to which assignments are given.

In both of these illustrations, consensus might have been achieved in the Air Staff and directions based on the consensus issued to the major commanders involved. This is done, however, only when experience throughout the Air Force indicates that a general solution to a serious problem is indicated.

In a simpler situation the superior official could consult frequently with the subordinate and refine the terms of the delegation to him. In big government, however, broad delegations are made and considerations of many sorts decree that the manner in which the job is done be left to the subordinate agency. This relationship even applies in the budgeting process. Budget limitations upon major commands cannot be coordinated with all the program branches in the Air Staff. The units in the Air Staff are always aware of the taboo involved: "We gave the commander a stated amount in his budget; it is up to him to get

the job done, and we in the Air Staff are not permitted to tell him how to do it."

The relations of headquarter staff to line agencies in the field also are affected by differences in rank, particularly visible in the military. The branch chief was often authorized to sign correspondence going out to the major commands. Major commanders, however, were four-star generals, and there was a strong taboo against direct instructions going to them from "low-ranking" officials in the Air Staff. Thus a directive which might prove difficult to carry out would have to be signed at a higher echelon, possibly even by the Deputy Chief of Staff. Even this official might occasionally feel some diffidence, since he is usually only a three-star general and might someday find himself serving under the major commander to whom he is giving direction. Even though each official signs "by Order of the Chief of Staff," he is always conscious of his personal status and hesitates to presume upon the authority of the chief he serves. Of course, the great mass of directives going to the major commands are never seen by the commander himself; they are passed automatically to the major command staff agency affected, and they usually are implemented as a matter of course. Branch and section personnel in the Air Staff, however, frequently ask one another the question, "Do you think you are big enough to tell General Soandso what to do?" and "Do you think the General will do this even when we direct it?"

Ultimately, the authority and, indeed, the conscience of the Air Force chief of staff resides for all practical purposes in the specialists on the floor of his staff structure. Branch and section personnel are often hesitant about "bothering the boss" with trivia, and thus many directives that possibly should go out die aborning by virtue of the breadth of the delegation to the major commander. The result is that the impact of the Air Staff upon the major air commanders is sometimes less than it ought to be. The major commanders often emphasize various facets of their activities at the expense of others to which the Air Force is formally and irretrievably committed. The specialists in the Air Staff, by virtue of the taboos of delegation, see what is happening but are powerless to correct it, and their superiors, who usually are busy put-

ting out administrative fires, do not know enough of the facts to initiate corrective action.

One avenue open to the program specialist to circumvent the taboos against direction to major commands is informal contact with his counterparts in the field. Usually this can be done through visits and semi-personal correspondence. In doing this, one is aware of the difference between informal and command channels. A specialist from Air Force headquarters on a visit to a major command has no direct authority over his counterpart at that level. But where there is no command objection, specialists often carry on extensive correspondence. In one case in my experience, this type of correspondence with one of the major commands ceased abruptly. A letter to the major command person concerned expressed the hope that there was no objection to informal correspondence, suggested that one way to minimize distrust of it would be to show incoming correspondence to administrative superiors for information and outgoing letters for approval before dispatch, and pointed out that formal command channels could hardly suffice to integrate a highly technical program operating Air Forcewide. A response from the major command stated that "technical channel" correspondence (as opposed to correspondence in command channels) had been proscribed but the restriction was being relaxed in this case. In the letters involved in this exchange, personal greetings were extended to the administrators concerned, and a cordial rapport was achieved. The headquarters specialist could in this fashion at least acquaint his major command counterpart with their program's goals and the directions of its growth, but he clearly could not command.

Coordination

Coordination is generally conceived as a meshing of action, a system for working together. As such, it is a positive thing. To the individual bureaucrat who has a specific goal in view, however, it is essentially negative. In action, the coordination process is mainly a systematic checking to discover any reasons why a proposed course should be modified or not taken at all. The administrator then must scan the departmental horizon for persons

and offices that might raise objection to the thing he wants to do; any one of them can defeat his purpose or modify it severely enough to render it useless. Most coordinating efforts are simple. Often all that is involved is a telephone call to an interested office to request concurrence. There are sometimes exasperating delays, but the administrator comes to recognize the fine administrative art involved: maintaining cordial acquaintanceships in offices with which he has frequent contact, operating with as much candor as he can muster, striving to inspire the confidence of others in himself and his staff, rendering small services whenever he can, and steadfastly refraining from openly branding sheer obstinacy for what it is. These are the types of things that the professor seldom appreciated before he became a bureaucrat.

Coordination is not one process but many. Formal coordination might involve submission of a position paper from one level of an agency up to the top, then across to the head of a parallel agency, and back down to the level where it started. This is not as common, perhaps, as informal coordination via telephone or luncheon conversation or simultaneous formal coordination through committees.

One type of coordination can be illustrated by describing a Department of Defense *ad hoc* committee on dependents' schools. Frequently problems facing the several military departments are highly similar at the outset and yet their administration becomes dissimilar as each unit carries out its mission. Such was the case with the elementary and secondary school programs which the Army, Navy, and Air Force conduct for their personnel stationed overseas. As each of the three departments developed school systems overseas, it went its own way. By the time congressional committees began to ask questions, budgeting, accounting, personnel, and other administrative aspects of the programs varied greatly among the three departments. The desire in the big bureaucracy to conform to even the slightest suggestion from a congressional committee led to a movement within the Department of Defense to make the dependents' schools programs as nearly uniform as possible in the three departments. Thus the Department of Defense *Ad Hoc* Committee for Standardiza-

tion of Administration and Budgeting Procedures for Dependents' Education Program Overseas was established.

The question at hand was almost infinitely complex. Of course, the Department of Defense could simply have directed uniform ways of doing things, but it could not possibly have known the disruption this would cause. Since finance and civilian personnel offices as well as those of dependents' schools were involved, no office in the entire Department of Defense was competent to draft an original paper that could serve as a basis for the formal coordinating process. The only solution was a large *ad hoc* committee containing specialists from the Army, Navy, and Air Force in the fields of schools, civilian personnel, and finance. Such a committee, with knowledgeable representatives from all vitally affected staff areas in all three of the departments, could work toward Defense-wide consensus. It is significant that the Department of Defense requested participating branch offices to nominate their best informed specialists, and they did. These persons, back at their desks, would not normally be authorized to speak for their respective branches or divisions. In this committee process, however, it was their consensus on which the Department of Defense based its directive, in full confidence that the several services could abide by it.

The professor rarely appreciated these involvements when he expounded upon the subject of coordination, nor doubtless did he reflect that the sheer magnitude of the bureaucracy greatly augments the time and effort involved in achieving concerted effort.

Control

There are many aspects of control which impress the professor turned bureaucrat. For example, let us illustrate the span of control concept with the director of military personnel in the Air Staff. This official, three or four echelons above the specialist at the base of the Air Staff structure, has a multitude of responsibilities. Stated simply, his span of control extends over five divisions; but each division has an average of five branches and each branch an average of four sections. Although his span of control reduces his responsibilities to manageable proportions, he is

regularly involved with details which, except for high policy involvements, would be handled at lower administrative levels.

This problem is typical, for example. Dependents of personnel residing on Air Force bases usually are far from civilian schools and must go to school by special bus. An Air Force base in Ohio requested authority to contract for dependents' school bus transportation. Congressional interest in the propriety of such contracts had become quite substantial, and in consequence the Secretary of the Air Force had decreed that legal counsel in his office would pass upon all such decisions. The director of military personnel needed to know all of the fine points of a matter being considered so far above him in the hierarchy. At first, he, his deputy, and his executive officer were given a briefing by the dependents' school specialists on all of the issues involved. He then signed the message requesting guidance from the Secretary's legal counsel. Thereafter he was kept informed of developments through executive officer channels. After the legal decision was rendered, a message to the appropriate air command, embodying completed action from the Air Staff, was prepared and signed by the director. Thereafter he was free to give attention to pressing matters arising from others of the hundred-odd offices for which he is responsible. Classroom discussion of the span of control concept hardly tells the whole story; only as a bureaucrat does the professor see that the grist for the upper echelon administrator's mill is many times the same as that of the specialist, with one added factor—political concern, so span of control, on paper, is in many instances more fiction than fact.

Another facet of control is that exercised by the Congress. The annual Department of Defense appropriation act prohibited the expenditure of funds for the education of dependents unless the secretary of the appropriate military department should find that localities concerned were unable to provide adequate schooling. There was thus a contingency to be established before funds could be spent. The professor enjoyed going over the concept of contingent legislation with his class. It provided one of the more abstruse and stimulating items in his academic repertoire. He considered it an ideally effective device for

exercising legislative control over administration. The bureaucrat gained a much different view of the arrangement. He saw the requirement of going into communities all over the world, wherever his department's personnel dwelt (not just where they were assigned to work), to collect data upon which to base the finding. He and his opposite numbers in the field labored arduously to locate and investigate all localities where dependent children would need schooling. After months of preparation and collation of data from the field, his recommendation wended its way through channels to the Secretary of the Department for the finding to be made. Then, after the

finding was formally made, he might discover that there were four locations in Spain, one in Israel, and two in Germany that would have to be covered by a supplemental finding. Later there would be others. The bureaucrat thus acquired an earthy view of the process of contingent legislation. He recognized that, although the department head gave little more than pro forma attention to the finding before he made it, definite and careful attention was paid to the need for dependents' education before it was provided; but he often wondered whether the purpose to be served was worth the cost in administrative time and effort.

"He hasn't any mental traits."

Among evaluations of subordinate officers included in annual military efficiency ratings—on which careers hinge—were the following, compiled by *Parade* (September 28, 1958):

His leadership is outstanding except for his lack of ability to get along with subordinates.

He hasn't any mental traits.

Needs careful watching since he borders on the brilliant.

A particularly fine appearance when astride of horse.

Believes sincerely in the power of prayer and it is astonishing to note how many times his prayers are answered.

Open to suggestions but never follows same.

Never makes the same mistake twice but it seems to me he has made them all once.

In any change in policy or procedure, he can be relied upon to produce the improbable hypothetical situation in which the new policy will not work.

Is stable under pressure and is not influenced by superiors.

Is keenly analytical and his highly developed mentality could best be utilized in the research and development field. He lacks common sense.

Has developed into a good, round staff officer.

Tends to over-estimate himself and under-estimate his problems, being surprised and confused by the resulting situations.

This officer's physical condition is good (broken leg).

An independent thinker with a mediocre mentality.

Maintains good relations unilaterally.

An exceptionally well qualified officer with a broad base.

Tends to create the impression of unpositive personality through needless and undiscerning gentility and softspokenness.

Of average intelligence except for lack of judgment on one occasion in attempting to capture a rattlesnake, for which he was hospitalized.

The Civil Service of the Ancient World

By WILLIAM C. BEYER

EXCEEDINGLY little has been written on the early beginnings of the civil service. The purpose of this paper is to make a modest contribution to our knowledge of the administration of ancient governments.

The writer, it should be understood, is neither an archaeologist nor a historian, but merely a student of government who for many years has been especially interested in public personnel administration and has felt a growing need to see the public personnel practices and problems of our time in a longer historical perspective. As historians have given only slight attention to the administrative side of government, he has had to piece together the civil service picture of the ancient world from widely scattered fragments. Needless to say, he did not find all the pieces.

Ancient Egypt

Egypt's records go back as far as the fourth millennium B.C.; its national life-span extends over more than thirty centuries, with a few intervals of foreign domination. For this purpose, we shall focus mainly on the period of the Old Empire, from 2900 to 2475 B.C. This not only is the earliest period for which we have any considerable amount of information, but also is one of the most splendid in Egyptian history. At this time Egypt's government was at its dynamic best, at once bold in action and sophisticated in administration.

Organization of the Government

The Old Empire was essentially a unitary state. It had local governments as well as a central government, but the local governments were little more than administrative districts of the central government. At the head of the central government was a king, or pharaoh, as he came to be known later. Theoretically he

► Students of public administration have looked mainly at immediate problems and current experience, despite considerable attention given by historians to the administrative institutions of the past. By contrast, students and even practitioners of political institution building often looked down the whole length of recorded thought and experience in making their analyses and considering their action. A sample of the rich vein of recorded administrative experience is noted here in a brief survey of public administration in ancient Egypt, Athens, and Rome.

was a god as well as a political ruler, and all power, legislative, executive, and judicial, was vested in him. First in authority under the king was the vizier or prime minister. He not only presided over the entire administrative hierarchy but also was the chief justice of the country, with both original and appellate jurisdiction, had charge of the state's central records office, and served as the king's chief architect. Under the general supervision of the vizier were a number of large administrative departments, among them the treasury, the granaries, agriculture, public works, the armory, and the army. In addition there were the temples of the state gods and the mortuary temples of the kings.

Local government was carried on by the provinces, or "nomes," as they were called by the Greeks. The governors of the nomes, known as "nomarchs," were appointed by the king. They were also the rulers of any large towns in their districts. Each nome was to some degree a copy of the central government and had such counterparts of the latter as the treasury, the granaries, and the army. A nome had also its own assessors, tax collectors, and other administrative aides. These officials performed central as well as local functions. For trying local offenses, there were district courts, but as their decisions could be appealed to the high court presided over by the vizier, and

finally to the king, they were also a part of the national judicial system.

Egypt's Bureaucracy

The higher administrative group consisted in part of the members of the pharaoh's own family, of whom there were a great many. In common with other rulers of the ancient world, the pharaoh possessed not only his chief consort but also an extensive harem, and his children numbered at times into the hundreds. Under the Old Empire they held such high posts as vizier, "treasurer of the god," and high priest in the temple of Heliopolis, the sacred city. Another source of administrative officials was the feudal landowning group. The governorship of a nome was usually bestowed upon the greatest landowner in the jurisdiction, and he, in turn, secured high appointments for members of his family.

Below this group of high officials there were the numerous intermediate functionaries and the still more numerous body of artisans and laborers. Of the former, the scribes formed a large contingent. As their occupation required them to have more than a minimum of education and training, they were usually of middle class origin. The artisans and laborers, especially the latter, belonged to the lower strata of the population, many of them being slaves.

How were the government workers trained for their tasks? This was done in several ways. The sons of the pharaoh were taught in the palace by private tutors, and under the Old and Middle Empires other boys also, presumably sons of noblemen, were admitted to this instruction. Thus there was developed a sort of royal school. Under the New Empire, boys intended for the profession of scribe were sent to schools conducted by the various government departments. In these schools the higher departmental officials were themselves the instructors, but the instructional program was not limited to acquainting the students with the practical work of the department, being designed to provide also for their education and intellectual development. There appear to have been special royal schools, known as "stables of education," in which boys were given military training. These, too, provided more than technical education. Finally there were schools in the temples in which Egyptian children generally, especially boys, were

taught reading, writing, and arithmetic. The ordinary Egyptian workman usually could at least read and write.

How were the civil servants compensated? Ancient Egypt did not rely on part-time amateurs or unpaid volunteers. All members of the bureaucracy, other than slaves, appear to have been fulltime, paid employees. The payments, moreover, were in salaries, not fees. It may be assumed that the pay varied with the occupation and rank of the worker, for there is evidence of luxurious living among the higher officials. This affluence, to be sure, may be accounted for in part by gifts bestowed upon them by the king as visible tokens of recognition for meritorious services or as special favors. An official's salary might be supplemented also by permission to use property belonging to the crown, such as royal carriages, in much the same manner as some public officials in our own day are permitted to use state-owned automobiles and living quarters.

What were the opportunities for promotion in the government services? One of the conspicuous characteristics of the Egyptian bureaucracy was its clear delineation of the paths of promotion. Each department was organized in a hierarchical manner and had its own promotion ladder. The scribes in the various departments, for example, had the prospect of at least two moves upward, first to superintendent of scribes, and then to chief scribe. As to the method of promotion, we know only that the favor of the superior officer was of great importance. The legal power to promote as well as to appoint was in the vizier and, beyond him, in the pharaoh himself.

Finally, how much security of tenure did public servants possess? There appears to have been a high degree of stability in the Egyptian bureaucracy. By custom if not by law many of the public posts went from father to son or to some other close relative. This was particularly true of the governorships of the nomes. Priestly offices, too, were to an extent hereditary, that is, entry into priestly ranks was hereditary, but not the hierarchical level. Generally speaking, the Egyptian official, regardless of his level or departmental location, had a strong desire to leave his office to his son, and often he was able to do so.

Appraisal and Comment

Ancient Egypt early recognized the importance of trained men for the tasks of government, and it designed a system of education to provide the training required in government service. Moreover, it so organized the various governmental departments that they offered clear lines of promotion to new entrants and held out the possibility of attractive careers.

As to the efficiency of the bureaucracy, one cannot speak in unqualified terms. Certainly its emphasis on system and order, for which the Egyptian bureaucracy was noted, should have made for longrun efficiency. But system and order do not themselves produce efficiency; they merely channel human energy along rational lines. The ancient Egyptian, however, was not distinguished for his energy or punctuality. His was an easy-going way of life, and the Egyptian bureaucracy lumbered along in the same easy-going manner. Nevertheless it appears to have finished what it started, including the largest buildings of all time, and this record speaks well for its efficiency.

The Egyptian bureaucracy did not suffer from lack of prestige. A career in government was much sought after and was more highly regarded than a career in private enterprise. The Egyptian civil service was not only respected, it was feared; and well it might be. In modern democracies public officials are regarded as servants of the people; in ancient Egypt, as in other ancient monarchies, they were the people's masters. They freely employed fear and even brutal treatment to gain compliance. From an American point of view the problem in ancient Egypt was not low prestige of the civil service but rather lack of freedom for the individual.

In the end the Egyptian bureaucracy became more a burden than a help, but this did not occur until its control passed into non-Egyptian hands. When the Greek Ptolemies came into power, after the conquest by Alexander the Great, the Egyptian theory of the absolute authority of the pharaoh, which had been thought of as a personal relation between the ruler and his subjects, was translated into Greek terms as the absolute authority of the state, and the Ptolemies acted upon this version. The former personal relationship was transformed into what Margaret A. Mur-

ray calls the "soulless domination of state control." There followed a systematic extension of state regulation to all spheres of economic life, a great increase in the number of public officials, and heavy taxation. These in turn broke the spirit of the people and weakened the nation, making it an easy prey to Roman conquest. Thus the Egyptian bureaucracy, which for thousands of years, when it was used in moderation, had been a blessing to the country, when used in excess became a curse.

Ancient Athens

Ancient Athens, a small city-state, stands quite in contrast to the two large territorial states with which it is included in this survey. Moreover, fifth-century Athens, upon which we shall focus, was a democracy, whereas the Old Empire of ancient Egypt and the Late Empire of ancient Rome were despotisms. For these reasons alone, we may expect to find the Athenian civil service somewhat different from either of the others.

Government by Amateur Boards

We shall assume that the reader is familiar with the general organization of the government of fifth-century Athens—with its popular assembly, which included all the citizens of the state, with its council of five hundred, which served as sort of an executive committee of the popular assembly, and with its system of popular jury courts; and we shall turn immediately to its administrative setup. This presents a striking contrast to that of ancient Egypt. Instead of hierarchical departments headed by single officials, we have a series of amateur boards. Most of these boards consisted of ten members, one from each of the ten tribes of which the citizenry was composed. For each of the less technical functions of the government there was a separate board. Among those concerned with civil administration were the following: a police board, a board of public works, a board for the market, a board for the inspection of weights and measures, a board to enforce the laws relating to customs duties and trade, a board for the purchase of grain, a board for the purchase of cattle, a finance board, a board of treasurers for the goddess Athena, and a similar board for the other gods, a board to keep the registers of all state revenues, a prison board, and a board for the public games. For a few highly

specialized functions there were single executives, among them, the superintendent of finances, the controller of administration, the superintendent of springs, and the chief architect.

We have spoken of these administrative bodies as amateur boards. It is typical of boards to be amateur in character, but the Athenian method of constituting them was especially designed to make them so. For most of the boards, the members were chosen from the citizenry by lot. If a member did possess specific qualifications for the task, it would be by mere chance. In addition, the term of office was only one year and members were not permitted to serve longer on any single board. There was accordingly little opportunity for a member to become expert through experience after his accession to office. Furthermore, these were unpaid positions except for free meals. The fact is that the Athenians were less interested in having their government efficient than in keeping it responsive to their wishes. For the latter purpose the rotating amateur was more acceptable than the permanent professional.

Some of the higher officials, however, were chosen by popular election rather than by lot; among them, the board members who supervised the public works, the buyers of cattle for slaughter, and most if not all of the highly specialized single executives referred to above. Moreover, the limitation of term to one year appears to have been waived for some of the elective offices. The superintendent of finances, it is known, had a four-year term. While our information is fragmentary on the point, it appears that the subordinate state workers were appointed by the administrative authorities under whom they served, that they received modest salaries as well as free meals, and that they were not changed annually. It is likely also that the state slaves, who served in government offices in some numbers, constituted a corps of permanent workers. The evidence at hand, however, is insufficient to support the view that the government service of fifth-century Athens was composed to any considerable extent of career men enjoying security of tenure.

Class Origins of the Civil Servants

It appears that all classes of the population (except resident aliens) participated in the

work of the state in some capacity. Even in democratic Athens, however, the top administrative posts were held largely by the upper classes. This was due principally to the fact that the less affluent citizens rarely came forward as candidates for the higher offices. The subordinate places in the state service which were not filled by slaves were occupied mostly by the lower classes of the citizenry. To what extent the state-owned slaves were employed in the civil service is not known, but they were utilized in a variety of routine capacities, as accountants, cashiers, bailiffs in the courts, prison attendants, executioners, criers, workmen in the mint, and even as police-soldiers in the city of Athens.

Appraisal and Comment

In keeping with the general spirit of Athenian democracy, it was designed to be highly responsive to the citizenry. The short terms and rotation in office for the higher officials were for this purpose. Efficiency was secondary to responsiveness. The Athenians paid little heed to competence in their selection of public officials and provided no special training for any branch of the government service except the military. Nor did they put a high value on experience, for by their system of rotation they constantly scrapped it in favor of responsiveness. Only in the subordinate positions was long service allowed.

Through selection of officials by lot an effort was made to keep factionalism out of administration and to preserve the neutrality of the government service. It is interesting to recall that the primary purpose of the competitive examination when first introduced in the United States was precisely the same.

It should be recognized that the Athenians had no great need for efficiency in government. They had no Nile to harness as did the Egyptians, no vast empire to administer as did the Romans, and no conquered home population to keep in subjection as did the Spartans. Theirs was, moreover, a distinctly private enterprise society, with government largely confined to a defensive and regulatory role. It provided only a minimum of police protection for the people, and it left education to private schools subject only to general state regulation. The construction of public buildings and other public works, which in ancient Egypt was performed directly by the

government, in ancient Athens was done under contract by private builders. Even the collection of taxes was farmed out to private contractors. It mattered little therefore whether the government service was highly efficient or only moderately so.

Compared, for example, with the elaborate professional bureaucracy of ancient Egypt, the civil service of fifth-century Athens was indeed an unimpressive and amateurish affair. It should not, however, be regarded as belonging to a less advanced stage of human development, for it co-existed with Athens' cultural and intellectual leadership of the ancient world. Rather it was a part of a distinctly superior civilization cast into the democratic mold. There may even have been a causal connection between the unregimented life of Athenian democracy and the unprecedented productivity of its artists, sculptors, architects, rhetoricians, poets, dramatists, and philosophers.

Ancient Rome

When Rome emerged from the prehistoric period, late in the sixth century B.C., it was a small city-state, comparable in size to ancient Athens. By 300 A.D., when it reached the height of its territorial conquests, it had expanded into an immense empire exceeding in extent that of Alexander the Great.

Along with this territorial expansion had come profound political changes. When Rome first appeared upon the stage of history, about 500 B.C., it was a patriarchal monarchy; from 500 to 27 B.C. it was an oligarchical republic; from 27 B.C. to 285 A.D., the period of the Early Empire, it was a limited monarchy; and from 285 A.D. to the end of the Western Empire in 476 A.D., the period of the Late Empire, it was an absolute monarchy. During the Late Empire, the imperial bureaucracy was in its most highly developed state, though the period ended with Rome's fall.

Administrative Structure of the Empire

With the general organization of the Late Roman Empire, too, it will be assumed that the reader is familiar, and we shall proceed at once to sketch the administrative structure of the central government. This consisted of (1) the emperor's domestic household, which also played an important role in the affairs of the

state, (2) the imperial council, which deliberated on general questions of administration and assisted the emperor in his judicial functions, (3) the executive departments, and (4) the judicial administration.

Our concern is primarily with the executive departments, of which there were five, each headed by an appointee of the emperor and assisted by a numerous staff. In modern parlance, we may speak of them as the departments of administration, interior, finance, justice, and war. It is in these departments that we find the bulk of the imperial bureaucracy, though the high officials of the administrative districts and provinces of the empire were also appointees of the emperor and, therefore, together with their staffs, a part of the imperial bureaucracy.

Internal Characteristics of the Bureaucracy

Even in the days of the republic, the Roman civil service was structured along class lines, with most of the magistracies reserved for the patricians; but under the empire this stratification was carried further and made more pronounced. The imperial service was divided into three distinct divisions, each recruited from a particular class: (1) the upper division, comprising the top posts in the imperial service, from the senatorial class; (2) the intermediate division, including the high offices next in rank, from the equestrian class; and (3) the lower division, embracing the numerous minor positions and employments, from the humbler citizens, the freedmen, and slaves. Under the Late Empire the senatorial and equestrian classes became more or less merged, but they continued in their virtual monopoly of the higher positions. Both classes were open only to full citizens whose property holdings reached a prescribed minimum.

In ancient Rome, both under the republic and the empire, the state did not concern itself with primary and secondary education. In nonprofessional university education, it participated only to the extent of supporting a few chairs of philosophy or rhetoric in leading cities, and the city of Rome had a university of sorts. There were, however, special schools attached to governmental offices in which new appointees received instruction in their own work. These were of two kinds: one, providing a general literary education for the upper grade office workers, and the

other, instruction in routine for the lower office personnel. For the higher posts in the imperial service, a law education was required.

Under the republic only the lower ranking government workers other than freedmen or slaves were paid for their services, the magistrates being required to serve without pay other than expenses. Under the empire, however, salaries were extended to all citizen officeholders regardless of rank. The salaries, moreover, were graded, and officials of different rank were placed in different salary grades, much as is done under our modern classification and compensation plans. Officeholders also were exempted from certain taxes and received retirement allowances.

Career opportunities and promotions under the Late Empire, being closely related to the standardization of positions and salaries, were handled in the same systematic manner. The imperial service offered three distinct careers, coinciding with the division of the service along class lines: the senatorial, the equestrian, and the lower. Each of these divisions was subdivided into salary grades which formed rungs on a promotion ladder. Normally promotions were confined to divisions, but there was some movement from the lower to the higher divisions, just as there had been in recent years in the British civil service, which is organized somewhat along imperial Roman lines. The method of normal promotion was by seniority, but there is reason to believe that departures therefrom were not infrequent.

Members of the civil service were appointed by the emperor and served during his pleasure. The actual practice varied from one emperor to another, but, as H. Mattingly has put it, "The better administrators seem to have made a point of allowing considerable terms of office." Legally, too, all appointments made by an emperor terminated upon his death. His successor could, if he wished, replace all existing officeholders with appointees of his own. Here, again, the practice varied with the emperors. Some made wholesale removals upon their accession to office while others made scarcely any. Diocletian, for example, though he wrought a revolution in the character of the imperial government, converting it from a limited into an absolute monarchy, made relatively few immediate changes in its personnel. Generally speaking, while the Ro-

man civil servant did not have the protection of tenure laws, he probably had a high degree of actual security in practice.

Appraisal and Comment

The Roman civil service developed into a truly magnificent professional body for administering the affairs of the state. In its organization, competence, and magnitude it partook of the grandeur of the empire itself, indeed formed a part of that grandeur.

Like the ancient Egyptians, the Romans had a penchant for system and order, and this imparted to their civil service a degree of standardization in positions, titles, and salaries approaching that of a military organization. This standardization in turn not only made for orderly administration of personnel affairs but also enhanced the dignity and prestige of the service.

For its prestige, however, the Roman civil service was indebted more importantly to other considerations. One was the manning of the higher administrative posts with members of the senatorial and equestrian classes, which was begun by Augustus and continued by the later emperors. The other was the fact that the Roman civil servant, like his Egyptian counterpart, was the representative of an autocratic power and, as such, was both respected and feared.

Notwithstanding its own lapses from rectitude, the imperial civil service proved a great improvement upon the corrupt and rapacious officialdom by which the Roman world was governed during the latter days of the republic. This was true particularly in the administration of the provinces, more especially in the levying and collecting of provincial taxes, which formerly had been done on a contract basis. After the amount of taxes to be collected from a community had been determined, the task of collecting it was turned over to a company of *publicani* who then proceeded to extract from the taxpayers a much larger amount than the levy, retaining the difference as profit. This method resulted in great abuses in which provincial officials became involved. Under the empire the collection of taxes was taken over by salaried public servants and the gouging of the taxpayers for personal gain was greatly mitigated, to the great joy of the provincials.

In common with the Egyptian bureaucracy,

the Roman civil service finally became oppressive and burdensome. It, too, engaged in excessive regulation of the economic life of the people and subjected them to heavy taxation to support a growing army of imperial agents. Under this dual frustration the Roman citizenry suffered the same breakdown of spirit as did their Egyptian predecessors under the Ptolemies. Industry and agriculture languished, population declined, even the army became so weakened that it could no longer hold back the barbarians who were pressing upon the nation's borders. In a very real sense, the Roman civil service, which at the outset had been the empire's chief instrument for bringing peace and prosperity to the Roman world, in its latter stages became one of the principal causes of the empire's fall.

By Way of Conclusion

The civil services of ancient Egypt and the Roman empire had many common elements; indeed Rome borrowed some from Egypt. The hierarchical form of organization, full-time professional staffs, social stratification of the service, clearly marked paths of promotion, relative security of tenure—these were characteristics of both services. Both, moreover, had the same tragic endings, in becoming oppressive and burdensome to the people. Sharply in contrast stands the civil service of fifth-century Athens. Scarcely any of the elements common to the Egyptian and Roman

civil services are found in the Athenian. Instead there are amateur boards, selection by lot, rotation in office, and an almost complete absence of professional staffs. As we have remarked above, Athenians valued responsiveness in government more highly than efficiency, and under their conditions had in truth no great need for governmental efficiency. On the other hand, the Athenian system would have been wholly inadequate for the needs of Egypt and Rome.

Bibliographical Note

Among the books and articles that the author has found most useful in this study are the following:

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Bug Spraying Not Education—except for Administrators

... It seems that planes should have been out spraying the mosquito haunts in late June. But the state decided last year to list its \$135,000 mosquito-control appropriation in the budget of the Department of Conservation, instead of in the appropriation for the college's Agriculture Experiment Station. In the changeover, the take-off of the spraying planes was delayed. ...

Under the new arrangement, the state's purchasing procedure had to be used to hire the planes and procure the materials. The state's Division of Purchase Property tried to speed matters by waiving all the requirements it could, but the spraying contract could not be signed before July 15. ...

The State Budget Director, who dislikes mosquitoes as much as anyone, said the spraying set-up might have been unchanged if the university officials had wanted the mosquito spraying listed under "education." The appropriation, it was explained, had in the past made the university's budget look fatter than it really was.

—*New York Times*, July 30, 1959.

Reviews of Books and Documents

Book Review Advisers: Charles S. Ascher, Arthur W. Bromage, Robert L. Oshins

The Breath of Change for Managers

By GEORGE E. BEAN, City Manager, San Diego, California

THE EFFICIENT EXECUTIVE, by Auren Uris. McGraw-Hill Book Company, Inc., 1957. Pp. 308. \$4.95.

MANAGERIAL PSYCHOLOGY, by Harold J. Leavitt. The University of Chicago Press, 1958. Pp. 335. \$5.00.

COMMUNICATION IN MANAGEMENT, by Charles E. Redfield. The University of Chicago Press, 2nd Edition, 1958. Pp. 314. \$5.00.

YOU AND MANAGEMENT, by Daniel R. Davies and Robert T. Livingston. Harper and Brothers, 1958. Pp. 272. \$4.50.

IMPROVING MANAGERIAL PERFORMANCE, by Virgil K. Rowland. Harper and Brothers, 1958. Pp. 167. \$3.50.

IN *The Efficient Executive*, Uris makes this statement:

The breath of change is blowing through executive offices. Depending on who is sitting at the desk, the breeze will chill or invigorate. Old methods are marching toward obsolescence at a faster pace than ever before. Even more unsettling, yesterday's standards no longer tell us what we want to know. . . . To the query "How do I adapt?", the answer for the manager lies in two related ideas: 1. Re-examination of purpose [and] 2. Search for new methods.

Each of the five publications reviewed in this article presents in its own way a re-examination of purpose and a search for new methods for today's and tomorrow's manager. To state that this re-examination and search are necessary is neither original nor very profound. Both the student and the practitioner have been aware for a long time of this necessity. I would also hasten to say that these five books do not at all portray the huge outpouring of management guides published recently. Uris noted in comparing the manager

of the past with the present: "With bare hands and brain alone, he was supposed to subdue the problems that dogged his steps through the wilderness of executive routine. Increasingly, however, the executive is getting to be a tool-wielding professional." Like today's bewildered do-it-yourself craftsman, today's manager is expected to carefully appraise as many as possible of the management tools which are being presented to him in large volume.

Two comments should be made about these books before they are individually reviewed. With the exception of *You and Management*, they assume that the reader has a basic knowledge of management. Secondly, they are aimed at the industrial manager, with only occasional reference to public administration. Their applicability to public administration, however, is obvious, since the concepts and management practices of public and private operations have in recent years grown steadily closer together.

Organization, Job, and Self

The Efficient Executive is a somewhat light-hearted and yet sharply critical set of rules and tools that an executive should use to become both more efficient and effective. The introductory chapters, "Concepts of the Efficient Executive," indicate that few of us need to have the importance of efficiency pointed out to us. Generally, our drive for efficiency is self-generated. But Uris states that the logical or common sense approach to efficiency frequently leads to a dead end. Achieving greater efficiency must be a unique undertaking for each of us.

Uris breaks down our managerial activity into three areas: (1) organization-dictated, (2) job-dictated, and (3) self-dictated. "Your

Organization-Dictated Activities" describes those activities that stem from the needs of your organization. They include the tasks which are performed as a member of the management group. "Your Job-Dictated Activities" deals with the immediate responsibility for getting out the work of your own unit within the whole organization.

Uris concludes this part of his book by discussing two techniques frequently overlooked by authors in this field. The first is post-planning as contrasted with pre-planning. He points out that pre-planning is only half the job of getting something done. Keeping the plan going and on track requires steps that are at least as important as those of the original planning session. Planned rehabilitation should also be practiced to pick up the pieces if a plan has failed.

The second technique is contained in his chapter on "The Art of Failsmanship":

We tend to think of failure as the opposite of success. If we once agree that the ability to benefit from failure can lead to heightened effectiveness, then failure loses its horror. . . . We would not be true products of our culture if we did not experience failure without a feeling of depression or defeat, but it is precisely this emotional hang-over which prevents us from using mistakes as a learning experience. . . . It is logical that your view of success and failure should complement one another. Therefore, once you adopt a more reasonable attitude towards success, you will at the same time be able to review failure with more understanding.

"Your Self-Dictated Activities" covers those tasks that you "voluntarily undertake in order to satisfy your personal ambitions for increased status, higher earnings, ego satisfaction—in short for personal advancement."

The Efficient Executive concludes with a chapter on the difference between efficiency and effectiveness. "Efficiency implies action with a minimum of waste. . . . Effectiveness relates to results achieved." A manager may be effective and not efficient or efficient and not effective. Uris concludes

. . . that your performance must aim to be both efficient and effective to be satisfactory to those of your colleagues who judge your merit. And also to that executive likely to be your severest critic—yourself.

Understanding Self, Another, Thousands

In *Managerial Psychology*, Leavitt's primary mission is to explain the reasons for human behavior. He has successfully achieved this goal without resort to technical language or extensive description of cases and situations. Leavitt has logically divided his book into four sections. These sections deal with people one, two, a few, and many at a time.

"People One at a Time" seeks to aid the manager not only in his evaluation of another but also of himself. In describing the individual, Leavitt first points out the similarity of all human beings—that all rational human behavior is caused, motivated, and goal directed and that these three factors are all interrelated in a circular pattern. He then describes in several chapters how individuals differ and why. Physical versus psychological motives, degrees of dependence, and types of perception are thoroughly discussed.

Discussing the ways in which the individual reacts to frustration and conflict, Leavitt observes that "perhaps the most important key to whether we encounter frequent frustrations or not is our own individual standard of success. . . . Perhaps one can argue that a person who is in a position to set standards for other people has a responsibility to set those standards neither so low as to provide inadequate opportunity for full expression, nor so high as to guarantee feelings of failure." Self-set goals, he continues, create more efficient problem solvers and permit a wide choice of alternate solutions even though the one "best" solution may not be chosen.

"People Two at a Time" is really an extension of Part I, but now, instead of analyzing the individual, we deal with him in many diverse ways. We communicate, influence, direct, or entice. Leavitt explains how we try and why we sometimes fail. Even if you could isolate just one individual from his environment, dealing with him is extremely complex because human beings "move, respond, retaliate and change. So if we are to come up with any rules at all, they must be rules governing the behavior of the [human] relationship, not just the behavior of one of the elements." But when we consider relationships, we must take into account the environment of the organization which in itself is complex and complicated, "so complicated that every-

one from the chairman of the board on down requires the help of other people for the satisfaction of his needs." As soon as a manager realizes that the structure and people of his organization are constantly shifting, changing, and resisting equilibrium, he should be in a better position to understand and constructively adjust his operations.

The current concept of communication comes in for sharp criticism by the author. He points out that the prime purpose of communication is to change the receiver of the communication, yet, he implies, most authorities are more concerned with the changer than they are with the changee.

On the subject of authority and influence, Leavitt concludes that "authority as a restrictive mechanism seems to be more useful in short-term, specific situations, where [the changee's] retaliatory power is minimal, where the change sought is change in specific overt action, and where the restrictions are perceived as depriving rather than frustrating." Using the example of Alcoholics Anonymous, the author illustrates why influence without authority presents the best approach to long-range permanent change:

The basic assumption underlying the AA approach is that people must take most of the responsibility for changing themselves and changers, therefore, must be helpers rather than manipulators. A superior's authority thus becomes a supply of means by which to help subordinates satisfy their needs through work rather than a supply of ammunition with which to threaten them.

"People in Threes to Twenties" recognizes the growing importance of groups and committees in organizations caused by the increase in size and specialization of today's organizations. The anti-group versus group-thinkers controversy is resolved: it "is a 'how' not a 'whether or not' problem. The 'how' issue can be divided into two subproblems. The first is how to make groups work. The second is how to fit them into the hierarchical design of most organizations." Again the problem of communications is analyzed, this time on the basis of the networks created by groups. Formal groups are compared to informal and communications systems to which all participants have equal access compared to centralized systems. If speed, conformity, and con-

trol are the prime purposes of a group, then its structure will operate best when it is formal and has centralized leadership. Informal groups with each member participating equally will generally operate more slowly but will normally have higher morale, will correct errors more surely, and will be more creative.

"People in Hundreds and Thousands" is concerned with organizational structure. Leavitt takes the rather practical position that, although there are disadvantages in today's increasingly complex organizations, "perhaps none of the bad effects is so bad that it outweighs the advantages of control and economic integration that the same characteristics also provide." However, he assumes that some disadvantages can be overcome.

Recognizing the difficulty of changing people, he analyzes the possibilities for changing organizations to fit people. One of these changes aims at solving problems of middle management which have grown rapidly in recent years. "A way to deal with those levels is to make them less important in numbers and in decision-making responsibility; to take planning away from them; to program them. Then their personality problems will be irrelevant. The evolving technologies of information processing should lead that way. Ten years hence, the man in the middle of the pyramid may be as routinized as the industrial engineer has made the hourly worker today." The effect of this trend on the individual will be very interesting to watch and may cause further social adjustments.

Leavitt contends that our present theories of organization often are not practical or realistic but that no better theories are available. (He does not mention the continual development of practical theory in the field of management and public administration—which is somewhat disconcerting to the reviewer. For example, the increasing interchange between the theoretician and practitioner and the development of good professional and practical management programs in our educational systems are not given due credit.) Still, he has high hopes for tomorrow because of recent developments in the fields of psychology, sociology, mathematics, engineering, and economics.

Organizing and Directing Communications

Communication in Management dares to enter a field already cluttered with poor communication carcasses and actually gives a clear, fundamental picture of how to communicate on communications.

Administrative communication must possess five elements, Redfield asserts: "A *Communicator* who *Transmits Messages* to a *Communicatee* to influence the behavior of the communicatee as seen in his *Response*." His emphasis is on influence and response. In addition to these five elements, administrative communication must take into account the organizational structure, qualities of supervision, working conditions, purpose of the organization, and the ultimate goals of the administrative structure. Analyzing the relationship between communication, morale, and efficiency, Redfield points out that we now know that it is more fruitful to think of improving communications by improving morale than of improving morale by improved communications.

"Communication Downward and Outward" deals primarily with the problems of order giving and transmitting information from a superior to subordinates. Here, Redfield commits the error that Leavitt warns of—he concentrates on fundamentals of downward transmittal with the apparent assumption that any failure is the fault of improper technique rather than poor analysis of the receiver of the messages.

A good set of rules are provided on when to use oral or written media and a good case made for simultaneous oral and written communication. Oral communication is used when it is necessary to know immediately whether an order has been understood and when the instructions are temporary. Written instructions should always be used when important and complicated orders are given which must be done in a precise and uniform way. Combining oral and written communications is best when it is necessary to explain and train or when written follow-up of an oral instruction seems useful.

In "Communications Upward and Inward," Redfield notes that "administrative communication is something more than transferring information from source to destination; it is also a process of feeding information back to

the original source in a never ending cycle." If this reverse flow of information were not available, control by the executive would be impossible. For the manager to determine the adequacy of his standards and provide the necessary program reappraisal, it is necessary for him to be constantly advised on the results of his communication downward. Particularly with the growing need to decentralize today's complex organizations, it is increasingly necessary to have constant feedback to maintain managerial control.

Since the most effective feedback lies in a reporting process, an entire chapter is devoted to it.

The executive has often been called a "generalist" to distinguish him from the specialist below. He is in fact a specialist also—a specialist in dealing with abstractions of all sorts rather than with the raw material of the organization's work. It is in this role that he leans heavily on the reports which, when they get to him, are so largely abstractions. The success of the organization depends to a great extent on the ability of the executive to interpret these abstractions, to visualize the facts behind a bar on a graph or a line on a chart so that he can act. The underlying situation may involve questions of organizational structure, policy, or procedure that he alone, at the top of the hierarchy, can fully comprehend and do something about.

"Horizontal Communications" concerns this still relatively uncharted and misunderstood branch of communication. Although we have always recognized that horizontal communication existed and had an organizational function, using and controlling it have presented rather unique problems. Redfield concerns himself with the two main formal activities of horizontal communication: (1) the clearance and review processes and (2) the use of conferences.

The concluding chapter presents a thorough discussion of the place of the conference in today's organization. In order to prevent a conference from becoming "a group of people who individually can do nothing but who meet collectively and agree that nothing can be done" the author discusses the proper role of a conference and the conference leader. "If understanding is the goal, the conference will be informational or instructional, with a relatively high percentage of leader participation. If acceptance is sought, the conference will be

developmental, problem-solving, or policy-making, with the leader stepping aside and the conferees becoming the chief contributors." The author completes his discussion on this subject by pointing out that opportunity for summary must be provided and actions to be taken (or not to be taken) clearly indicated, or the conference will lose all value.

Analyzing and Assessing the Job and Man

You and Management presents a rather personal approach to self-appraisal and self-improvement for the person who wants to be a manager and for the manager who would like to be a better one. The authors have done a capable job of describing the basic elements of a manager's job. They have provided a general guide for the prospective manager to measure his capabilities before entering the profession. Several chapters are devoted to the manager's relationship to groups, group structures, and group processes. They conclude by discussing his environment and dynamics and manager development programs.

This book was not included for the purpose of reviewing its basic contribution to the knowledge and understanding of management. It deals with fundamentals and is adequate. My main interest in it are two rather unusual managerial tools. The first is the concept of the manager's job and of the model manager as tri-dimensional and tri-relational. Although both the title and, unfortunately, the description of this concept are somewhat difficult to follow, in essence the authors have attempted to picture a three-way interrelationship of *process*, *function*, and *time* to describe the managerial job and *behavior*, *capacity*, and *time* to describe the manager as a person. This technique is used to graphically indicate that today's manager must take time into account when he applies decision-making (*process*) to a problem (*function*). The past, present, immediate future, and long-term future all must be taken into account for the proper decision to be made. When analyzing the manager as a person we must again use the concept of time in relating a manager's capacity and behavior, but now time is used as a factor to show that a manager's physical, intellectual, emotional, and spiritual capacities will alter his behavior patterns as he matures and is trained. In the reviewer's opinion, this

graphic approach to description and analysis is worth further consideration and development.

The second tool is a chart entitled "your management-development profile" which lists a fairly complete set of descriptive statements about the man and his relationship to his job and to others, with a rating scale from "lacking" to "superior." In the reviewer's opinion this chart could be effectively used by either the novice or gray-haired manager as an excellent guide for self-evaluation and for charting a plan for self-improvement.

Improving Performance by Appraisals

Improving Managerial Performance has a rather misleading title. The primary purpose of this book, and the reason for its inclusion in this review, is its description of a fairly new system for management appraisal of subordinates and their subsequent development.

After a rather brief description of the philosophy of management development, Rowland quickly analyzes and discards the more common forms of personnel rating systems and forms. He then describes a system of appraisal which he entitles *The Group Summary Appraisal*. In this system, a rating committee is used consisting of the employee's immediate supervisor, someone higher on the ladder, and, if possible, a person acquainted with his activities but not in the direct line of the employee's operation. Through many pages of illustrative conversation, Rowland describes how the committee would analyze the employee's present job performance, his capabilities for improvement, and his potential for advancement. Some of the advantages of this system are that more than one point of view is available and that the positive approach is built into the process. One member summarizes the committee's conclusions. (An example is provided.) After the report is approved by the members of the committee, top management reviews and comments on it. Following this review, the employee is brought in for an appraisal interview at which his immediate supervisor explains the conclusions in detail and gives the employee a chance to discuss ways in which he can improve and advance. Again, the author illustrates with imaginative conversation.

Another interesting chapter is "They Also

Ran," which suggests ways of handling and even taking advantage of the fact that whenever a promotion is made there usually will be employees who expected to but did not get it.

An Over-all Look

An underlying theme of these books is that the manager must continuously adjust his own carefully-analyzed personality to the equally carefully-analyzed problems which surround him in his work. If he uses all of the modern tools available to him, it is assumed that he is a true professional and will

gain breadth and depth as a person, even though success cannot be guaranteed by these tools. The danger is that we might become overly self-conscious and technique-conscious and lose normal sensitivity to people and the social forces around us as well as normal propensity for creative thinking about management. The authors of these books are well aware of this, even though their emphasis is on the techniques. Particularly since we are coming to see management as permeating our whole society, it is reassuring that the effective literature—and these books are part of it—does stress the importance of the individual and his responsibility for creative thinking.

Manpower in War and Peace

By HEINZ EULAU and WILLIAM DICKSON, Stanford University

THE INEFFECTIVE SOLDIER. LESSONS FOR MANAGEMENT AND THE NATION. Vol. I, THE LOST DIVISIONS, by Eli Ginzberg, James K. Anderson, Sol W. Ginsburg, and John L. Herma. Pp. 225. Vol. II, BREAKDOWN AND RECOVERY, by Eli Ginzberg, John B. Miner, James K. Anderson, Sol W. Ginsburg, and John L. Herma. Pp. 284. Vol. III, PATTERNS OF PERFORMANCE, by Eli Ginzberg, James K. Anderson, Sol W. Ginsburg, John L. Herma, Douglas W. Bray, William A. Jordan, and Francis J. Ryan. Pp. 340. Columbia University Press, 1959. Each volume, \$6.00.

IN TIME of peace, as in time of war, a nation's manpower resources, like its natural resources, are of crucial importance for collective survival. Military theorists have long recognized manpower as a critical ingredient of a country's war potential. There has been less appreciation of human resources as a vital component of a nation's peace potential, especially in the United States where it could easily be assumed that the country's manpower pool could not possibly run dry. If there is a single theme which pervades these three reports on American manpower problems in World War II, it is the neglect of the nation's human resources. The assumption of limitless manpower resources measurably

affected military rejection and discharge policies as well as performance.

Performance is the pay-off for whatever measures of manpower conservation or wastage are adopted—long-range and short-term, intentional and unanticipated. The records of soldiers are fertile sources for an investigation of effective and ineffective performance. No similar records are available for a study of national performance in time of peace. But is military performance sufficiently parallel to civilian performance to have transfer value? Probably, yes. In an age of mechanization, bureaucratic organization, and mass employment, the difference between the two situations is likely to be small. And just as military performance is conditioned, at least in part, by the social, physical, and emotional civilian background of the men inducted into military service, so civilian adjustment is likely to be conditioned, at least in part, by a man's military experiences. With universal military service now part and parcel of the training of the nation's youth, the distinction between military and civilian performance is likely to grow even less.

America's manpower crisis during the war was man made. And as it was man made, it was something that could have been avoided by the application of intelligence and foresight. It is this proposition which underlies

the research reported in *The Ineffective Soldier*. It makes these volumes a monumental demonstration of the relevance of basic research to problems of public policy.

The Project and Its Objectives

The research project on which the three volumes are based was set up late in 1949 at Columbia University on the initiative of General Dwight D. Eisenhower, then president of the university. In charge of the study, known as the "Conservation of Human Resources Project," was Professor Eli Ginzberg, an economist, who was assisted, commensurate with the broad scope of the investigation, by an interdisciplinary staff of psychologists, psychiatrists, historians, and statisticians. Their central question was: what facets of the manpower problem could account for ineffectiveness in performance?

No piece of empirical research is likely to be better than its theoretical conception. Facts, to be meaningful, must not only be interpreted in the theoretical terms, but the very selection of facts is determined by theoretical speculations. The authors of *The Ineffective Soldier*, in relating theory to data and data to theory, reveal the high level of sophistication which postwar research in the social sciences has been able to attain. In part, their theoretical orientation was almost forced on them by the wide range of partial and invariably unsubstantiated hypotheses about causes of military ineffectiveness which they encountered: child-rearing practices, underprivileged environments, lax military discipline, inherent emotional instability in modern industrial society, decline of religious training, inroads of pacifism, human softening due to the long-term rise of the standard of living. The authors assumed that such partial, one-factor explanations are asserted by persons with different standpoints. They tried to sort out from the great variety of possible vantage points those which were likely to bring out crucial factors for study. They identified three major variables whose dynamic interaction they could assume to be centrally related to ineffective performance: shortcomings within the individual himself, deficiencies in organizational policies and procedures, and stresses in the situation.

Variety of Findings

It is impossible to summarize the rich harvest of findings which constitute the bulk of the three volumes. They will be of different interest to different specialists concerned with the wide range of problems involving manpower resources and their conservation.

Policy-makers on the highest levels of decision-making would discover that many of the difficulties an organization faces stem from initial assumptions and requirements. In case of the Army's manpower troubles in the war, almost all later decisions concerning recruitment and use of personnel were conditioned by early commitments. At first, when it was assumed that the manpower pool was unlimited, the most careful screening standards were established. But in late 1943, when it was realized that manpower resources were not inexhaustible and the Army had to accept men previously disqualified, the inflow of defective personnel presented a more serious administrative problem than might have occurred if the backlog of ineffectives had not been built up in the first place. (We must, of course, recall the enormous speed and the degree of expansion that were necessary to transform a small professional military force into a mass army when we try to understand manpower problems of those years.)

Specialists in personnel administration would gain insight into the efficacy of different screening mechanisms. The authors are particularly critical of the great reliance on the psychiatric screen which, they suggest, had been oversold. Quite apart from the fact that the short psychiatric examination at induction failed to identify potential ineffectives, the authors point out that there is "no basis in theory for assuming that clinical diagnoses are good predictors of future work performance, especially when the psychiatric symptoms do not reflect severe pathology." In the Army as in civilian pursuits, a man's performance depends not only on his emotional stability but also on his educational background, his skills, his motivation, and his particular assignment. The psychiatric screen miscarried in three directions: first, men who might have performed satisfactorily, given a proper assignment, were rejected; second, men whose pre-military records gave clear indications of ineffectiveness nevertheless slipped through the screen; and

third, men who at the time of breakdown were severely incapacitated were not identified as potential ineffectives at the time of induction.

Demographers would be delighted by the sophisticated use of the kind of data so dear to them—age, education, marital status, race, or place of residence. All too often in social inquiry, demographic data are used not because they have been theoretically postulated as relevant, but simply because they are ready at hand and can be easily correlated with anything else. In contrast to such brute employment of demographic data, the researchers proceeded from the assumption that even if significant differences in social backgrounds were found between different types of ineffectives, such findings would “not provide definitive answers to the causes of ineffectiveness.” For instance, it was found that the older the man, the more likely he was to be an ineffective soldier. The rate of psychoneurotic breakdown increased with age quite rapidly, even for men in their twenties. But as there is nothing in civilian life that would suggest a parallel, the authors are cautious in interpreting this kind of evident relationship. They are sensitive to the ambiguity and blurring that occur in gross statistical analysis. More subtle factors, such as motivation to perform or differing situations causing different degrees of stress, might be involved. In fact, the sample analysis revealed that while age contributed to ineffectiveness, it was not the case with men who served overseas, and the conclusion is reached that “. . . if older people are selected carefully so as to eliminate those with hidden defects, their performance, even under the stress of combat, is likely to be as good as that of younger people.”

Line supervisors—the army commander as much as his civilian counterpart in industrial or public management—would find much to ponder with profit. For instance, many field commanders referred soldiers to the dispensary or hospital if they showed only minor degrees of incapacitation—in the author's view an abrogation of command responsibility. Similarly, there was a tendency to pass on rather than to deal forthrightly with serious disciplinary problems—a practice which “. . . compounded the suspicion that most transgressors would fail to perform effectively.” All

this could be explained but not justified by the immaturity of many officers, and the authors suggest that “. . . much more could have been done to give the line a clearer understanding of the range of emotional problems that were likely to crop up and suggestions as to how to deal with them.” But perhaps even more basic to this kind of manpower loss was the doctrine of exchangeability—the belief, long-cherished by military dogmatists, that any soldier should be able to do any assignment for which he has been trained. A corollary of this dogma was the belief that every man was potentially a combat soldier (though, in actuality, only three out of ten men ever saw combat).

These are only some selected, illustrative findings from the great mass of research results. There are many other findings of value to the organizational analyst, the psychiatrist, the educator, and even the military historian. The value of the entire work to military planners, draft boards, or congressional committees concerned with military policies and budgets is unquestionable. And last, but not least, the general political or social scientist interested in the theoretical problems of bureaucracy and mass organization will discover in these volumes a mine of relevant data and interpretations.

Policy Recommendations

The authors of *The Ineffective Soldier* seemed to take it for granted that their research should culminate in policy recommendations. They assumed that effective performance, in military service as in civilian employment, is uncontestedly a desirable policy goal. We are also inclined to think so, and we agree that the conservation and efficient use of the nation's human resources is a necessity, not only for the survival of the country or of some organization but also for the individual's worth and dignity.

Yet, the relationship between social scientific research and public policy-making is complex, and problems can arise out of their relationship. If the social scientist is satisfied with working toward the goals set by the organization to which he belongs or at whose behest he does his research, he is in danger of surrendering his freedom of inquiry. On the other hand, if he believes that he can carry on

significant research only in isolation from important social or political issues, he is not only likely to deceive himself, but he is also likely to ignore a crucial variable—that what people and policy-makers want to happen is an inevitable component of the area of inquiry in the social sciences. But neither extreme, it seems to us, is the only choice which the social scientist can make. It seems perfectly plausible to us that he can *tentatively* accept a policy framework not of his own creation yet carry on his research in the scrupulous manner expected of him as a scientist. And if in the course of his research he finds himself at odds with ongoing policies, our pragmatic bias inclines us to believe that, at least in an open society, he has at his disposal ways and means to redirect policy in the direction towards which his theories and findings dispose him to move.

This, it seems to us, has been the alternative chosen by the authors of *The Ineffective Soldier*. Though they accepted for the purpose of their research the policy that effective performance is the desirable goal, they have interpreted effective performance to mean a great deal more than what it meant to wartime policy-makers. Similarly, they cast their net far wider than the immediate subject, the military, questioning the policies not only of immediately-related organizations but also of the government as a whole and of the entire society.

Again space limitations prevent us from being more than suggestive. The authors recommend that organizations plan more carefully and realistically and keep policies as stable as possible. They also suggest a number of specific procedures concerning selection, training, assignment, and discipline. They urge government to do a great deal more to provide adequate educational opportunities, medical and psychiatric care, or high employment levels, and to remove those obstacles in the way of effective performance which spring from unsatisfactory residence, low income, and racial prejudice. Finally, they plead with our society as a whole to realize more effectively those values by which people assess the connections between their own fulfillment and the general welfare—such values as justice and opportunity (not only for a second but also for a third chance).

The Design of the Study

If policy is to be more than a set of arbitrary decisions, if what Harold D. Lasswell has called "policy science" is to be more than a noble aspiration, both political and administrative policy-makers must have confidence in the findings of research analysts. This confidence must be based on understanding of how knowledge has been created. And it is the social scientist's responsibility to inform policy-makers regarding both the possibilities and limitations of his craft. For this reason, problems and techniques of the study are also important to public administration.

The design of a research project is always bounded by practical considerations as well as by theory. The researchers here were limited by the fact that available data had been assembled for administrative purposes rather than for research. The difficulty may be illustrated by a problem of definition which was central to the research design. Ideally, research should proceed from a reasonable theory to the collection of data which might support or refute relevant hypotheses. But in this case, the raw materials had already been collected and the researchers had to move from empirical givens to theoretical definitions. They are somewhat less than candid in pointing out this procedure, yet a great deal depends on it. They defined an ineffective soldier as any man prematurely discharged from the Army for reasons of psychoneurosis, psychosis, mental inaptitude, or immoral character. These empirical criteria were not dictated by theory but by convenience. The procedure is not illegitimate, but its implications for the research design were considerable. For built into this operational definition of ineffectiveness is the latent assumption that all soldiers who were psychoneurotic, psychotic, mentally inapt, or morally undesirable would sooner or later come to the attention of line or medical officers. But this is a fragile assumption. Probably many men in these categories either were not found out or were not necessarily discharged even if they were.

This criterion of performance made it impossible to compare "ineffectives" as defined in the study (i.e., those discharged) with other soldiers, since the others undoubtedly would include an unknown number of similarly ineffective soldiers who were not discharged.

Moreover, as the authors show over and over again—and this, in fact, is one of their major contributions to personnel study—a great many of the ineffectives, so-called, could have performed satisfactorily if they had been assigned to different situations than those in which they broke down.

An investigation as broad in analytical scope as a study of military performance required a methodological approach of equal breadth if its promises were to be fulfilled. Mass or aggregate data, mainly used in *The Lost Divisions*, could be readily manipulated to yield knowledge about distributions for the Army as a whole, and secular trends throughout the war by relying on available classifications such as the clinical discharge categories or the scores on the Army General Classification Test. But aggregate analysis, while permitting generalized description cannot convey some of the rich human flavor that is hidden behind statistical tables. The case study, employed to good effect in *Breakdown and Recovery*, contributed to identifying and gaining insight into the wide range of strategic factors within the individual, his organization, and the specific situation which may account for ineffectiveness. The use of life history materials, beginning before and going beyond the military period, allowed a comprehensive evaluation of relevant factors. But neither descriptive statistics nor life histories allow the kind of controlled analysis with many variables which is required for the testing of theoretically viable hypotheses about the complex factors related to military failure. Only intensive analysis of samples by way of systematic cross-tabulation of analytical, rather than descriptive, categories can be the appropriate method. Accordingly, *Patterns of Performance*, the last but most comprehensive report in the series (which the reader might profitably turn to first), explains military ineffectiveness in terms of the dynamic interplay of personal factors, organizational policies, and situational stresses by analyzing a sample of ineffective soldiers.

A Typical Analysis

The kind of analysis made possible by intensive manipulation of the sample data may be exemplified by the study of varieties of ineffective performance. The analysis is

clearly designed to overcome the theoretically weak—though, as suggested, expedient—definition of ineffectiveness. It proceeds from the observation that ineffective performance is seldom related to emotional disturbance in a simple and direct manner. It seemed feasible to categorize ineffective soldiers by length and location of service in order to enable the researchers to distinguish, if only grossly, between the kinds of pressures culminating in ineffective performance: Situation I—those with domestic service of less than one year; Situation II—those with domestic service of one year or more; Situation III—those with overseas noncombat service; and Situation IV—those with overseas combat service. Tabulation revealed that 78 per cent of the sample, or about three out of four men classified as ineffectives by clinical standards, were “domestic casualties.” The authors conclude that “. . . the literature on military ineffectiveness which emphasizes the problem of the combat soldier gives an incomplete and distorted picture.”

This situational analysis made possible an appraisal of the Army's discharge policy. For this purpose, the ineffectives were placed into three classes by degree of incapacitation: Category I—major (47 per cent); Category II—moderate (30 per cent); and Category III—minor (23 per cent). Major incapacitation meant that there was convincing evidence of the soldier's future military uselessness. Moderate incapacitation implied defects which were not so severe as to preclude further usability, given contingent efforts at rehabilitation and suitable reassignment. Minor incapacitation involved an expectation of possible future breakdown rather than actual ineffectiveness. The authors emphasize that they do not disagree with the Army's decision to discharge soldiers in Categories II and III, but they feel that the records of these men do not clearly reveal that they could not have been of further use. On the other hand, almost half of the men in Category I probably should never have been inducted in the first place.

Cross-tabulation of these two major analytical dimensions—situational stress and degree of incapacitation—produced some interesting results. While almost half of the entire sample manifested major incapacitation, this was more characteristic in Situation I (least stress)

than in Situation IV (combat—most stress). This outcome supports the proposition that many who broke down early should not have been inducted. Second, as more than three out of five men discharged for minor incapacitation are also found in Situation I (early separation), their ineffectiveness (according to this definition) would seem to have been due to the Army's easy discharge policy during some phases of the war rather than to either personal factors or situational stress.

Comparison also was made between the various types of stress situations and incapacitation categories and the clinical diagnoses given by the Army for discharge. The authors estimate that 40 per cent of the men in their sample who were separated because of ineffectiveness had potential for further military service. Extending the sample proportions to the Army as a whole, the authors conclude that "... the number who could have continued to serve had the Army wanted them or had it been willing and able to make certain adjustments to facilitate their doing so was approximately 200,000 men, or the equivalent of over 12 combat divisions, almost one-seventh of the total combat divisions that the United States raised in the war."

An Appreciation

In spite of its length, this review has done only partial justice to the work of the Conservation of Human Resources Project. The Project and its products—and there are other reports than those treated here—belong to that small but highly significant group of collaborative, interdisciplinary research undertakings which in recent years have contributed much to the advancement of more reliable knowledge about human affairs. Works of similar scope and importance that come to mind are *The Authoritarian Personality* by T. W. Adorno and his associates and *The American Soldier* by Samuel A. Stouffer and his co-workers.

What makes works of this magnitude possible is a combination of factors: financial resources which permit the employment of talented research personnel over a considerable period of time; the ability of the researchers from different fields to overcome disciplinary boundaries in constructing and executing a broadly conceived research design; and the faith and confidence of lay sponsors supporting the research that social science can significantly contribute to the solution of human problems and difficulties.

Organizing for National Security Decisions

By HARRY HOWE RANSOM, Harvard University

ARMS AND THE STATE: CIVIL-MILITARY ELEMENTS IN NATIONAL POLICY, by Walter Millis with Harvey C. Mansfield and Harold Stein, The Twentieth Century Fund, 1958. Pp. 436. \$4.00.

AFTER a decade of cold war and of numerous defense reorganizations, both the White House Office and congressional committees are again studying the effectiveness of governmental institutions in shaping and applying national security policy. President Eisenhower has suggested that before vacating office he will offer further reorganization proposals to Congress.¹ Meanwhile a United States Senate

Government Operations Subcommittee, with assurances of White House cooperation, has initiated a study concerned with "whether our Government has appropriate machinery for producing and implementing the integral national policy needed to cope with the overall challenge of Soviet power and the cold war,"² in the words of its chairman, Senator Henry M. Jackson. *Arms and the State*, dealing with this nation's performance over the

¹ Remarks at the Foreign Service Institute, June 12, 1959.

² 86th Congress, 1st Session, Senate Committee on Rules and Administration, *Senate Report No. 302*, May 20, 1959, p. 2. The Senate Committee on Foreign Relations also has commissioned a study to be completed in the fall of 1959 by the Brookings Institution entitled "The Formulation and Administration of U.S. Foreign Policy."

past three decades, should be on the desk of all those concerned with such questions.

The major theme of this book is suggested in Harold Stein's introductory comment: that with the profound changes in the nature of man's world and the strategic position of the United States in it, "the demarcation line between 'civil' and 'military' in assessing the elements of national policy has become blurred." Stein and his co-authors agree that the warrior has had to become a specialist not in military art and science alone but in the art and science of politics. Some scholars have decried this trend as a perversion of military professionalism and a detriment to "objective" civilian control.³ Such a view finds little support in *Arms and the State*. If warriors have become students of politics, so a growing number of civilians have turned their attention to military affairs.⁴ In exploring the new status of arms and decisions about military security within the American constitutional system, this volume is added evidence of healthy interest in military affairs by scholars.⁵

America's new role in world affairs, the emergence of the Sino-Soviet bloc as contender for dominant world power, and a military technology accelerating almost beyond control in both Russia and the United States have brought a new status to the once isolated

military profession and a heavier emphasis on military and para-military considerations in shaping national policies. Where once Congress suspiciously investigated undue military influence on national policy, one now finds the majority leader in the United States Senate conducting hearings designed to smoke out undue civilian influence in shaping defense policy. Hear, for example, Senator Lyndon Johnson: "A key question is whether our military posture is being weakened because of non-military considerations."⁶ This suggests, as does much of the substance of *Arms and the State*, that the classical problem of civil-military relations—that of a "military" locus of power in opposition to a "civilian" locus—has little applicability in the contemporary governmental setting.

The book is even more pertinent to a question profoundly disturbing many students of public policy: whether a relatively undisciplined, loosely-organized society and a governmental system of diffused power such as ours can successfully stand off—much less take the initiative against—highly centralized, determined, and disciplined foreign powers motivated by an ardent faith and aggressive purpose. This volume, in centering its attention upon the new role of the military and upon the added importance of military factors in national policy, raises disturbing doubts about the American policy machine.

Civil-Military Relations Undefined

Arms and the State does not contain a clear and final definition of "civilian control" nor a unified general theory of civil-military decision-making in the new environment. The authors apparently doubt that it is now possible to pin down either a definitive concept of civil-military relations or a precise distinction between "military" and "civilian" factors in national policy-making.

To Harvey C. Mansfield, civil-military relations are "... nothing intrinsic—rather, they are an aspect of the interplay of a set of ideas and attitudes, institutions and processes, interests and individuals; and so necessarily a function of the changing times." Walter Millis

³ See particularly Samuel P. Huntington, *The Soldier and the State*, Belknap Press of Harvard University Press, 1957.

⁴ For a review of the main body of this literature, see Col. G. A. Lincoln and Lt. Col. A. A. Jordan, Jr., "Leadership To Provide for the Common Defense," 17 *Public Administration Review* 257-264 (Autumn, 1957). See also the symposium "Decision-Making in Defense: The Role of Organization," by Frederick C. Mosher, Paul Y. Hammond, Laurence I. Radway, and Max M. Kampelman, 18 *PAR* 169-188 (Summer, 1958).

⁵ This book is the product of a Twentieth Century Fund study of civil-military relations. The project is directed by Mr. Stein, well-known for his earlier work as Staff Director of the Inter-University Case Program and as editor of the widely-used case book, *Public Administration and Policy Development*. The Millis-Mansfield-Stein volume precedes yet-to-be-published case studies in civil-military relations which Mr. Stein has been supervising. *Arms and the State*, it must be said, does not represent Stein's original conception of the book. It was to have been a more highly-conceptualized analysis of the relations between soldiers and civilians and of the interplay of various factors in the formation of defense policy. The book became a co-authored, mainly historical and organizational analysis of politico-military affairs from 1930 to 1955 when the project director became ill.

⁶ *Hearings, "Major Defense Matters," Senate Armed Services Preparedness Investigating Subcommittee, 86th Congress, 1st Session, May 20, 1959. Part 2, p. 207. Committee Print.*

writes that at the end of two great world wars "... the old and seemingly clear-cut division between the civilian and the military was itself fading into insubstantiality." In his view, it has continued to fade. Harold Stein almost agrees with Millis and Mansfield, joining them to note the thinness of the lines distinguishing "civil" and "military" particularly at the government's upper levels. But, he adds a significant dissent: "... even there the line, however blurred, still exists. At the bottom it is much more clear and sharp." Stein develops this dissent all too briefly. He characterizes the military profession as a guild with its peculiar "guild loyalties and convictions" and with "a larger reliance on command than is appropriate or customary in American civilian hierarchies, governmental and private." Changing patterns of world affairs have increased the number and importance of questions that cannot be answered in isolation. The requirement for integrated governmental solutions to national security problems, by interdisciplinary as distinct from interdepartmental means, has neither weakened the guild spirit of the military, according to Stein, nor has it erased inevitable conflicts between groups with different outlooks, different missions.

In addition to an introductory chapter by Harold Stein, the book is composed of two main segments: first, a survey by Mansfield of policy, institutions, and events which have affected the evolution of civil-military relations in the period from 1931 to 1945; second, a summary and analysis by Millis of the evolving relationships between arms and the state in the turbulent decade following World War II. Mansfield's portion of the book, comprising roughly one-fourth of its total, is written from the vantage point of a political scientist with considerable experience in the World War II Washington bureaucracy. He also uses standard secondary sources dealing with the 1930-1945 period and various unpublished case studies from Harold Stein's research project.

Conclusions of a "Pragmatic Administrative Analyst"

The student of public administration will be interested to discover what lessons a "pragmatic administrative analyst" derives

from the period, particularly World War II. Although Mansfield has not summarized such generalizations, one can pick out from various sections the following:

1. During the 1930s and up to the eve of America's entry into World War II, diplomatic actions of the State Department often were taken without regard for military factors while military planning proceeded with little guidance from or concern with diplomacy.

2. Franklin Roosevelt's informal approach to administration prior to World War II had its advantages and disadvantages. Yet Mansfield's admiration for FDR's informal methods is apparent: "... negotiations entirely dependent on formally organized intercorporate or international or interdepartmental relations are apt to find the going rougher [than in more informal systems], more protracted, and less productive of satisfactory results."

3. Once war began, the constitutional balance shifted sharply in favor of the Executive over Congress, which usually acted promptly and generously on Executive requests. Similarly, within the Executive Branch, the State Department retired to the sidelines while the newly institutionalized Joint Chiefs of Staff largely took over under FDR's general supervision. "Until late in the war," Mansfield writes, "... State and the two military departments moved in separate worlds, with a minimum of working contacts between them." Given the prevailing military doctrine, that the sole function of military force is to secure victory, and given the failure of civilian leaders to provide timely political guidance to the military, this separatism had its unfortunate consequences. As an example, Mansfield cites the ignoring of the State Department on the question of occupation zones in Germany and of access to Berlin, which contributed to the contemporary crisis involving Berlin.

4. New military doctrines and new educational goals for military leaders were needed in the post-war years. Presumably what Mansfield has in mind is a re-establishment of the classical Clausewitzian precept of the primacy of politics in war and a broader political education for military professionals. He might have cited here the even more urgent requirement that civilian leaders be educated in military affairs.

5. The war left "... an urgent need for a reconsideration of the machinery of government to equip the President to integrate more effectively the diverse civil and military influences in American institutions. . . ."

Thus, some characteristics of the nation as World War II ended were: a narrowness of

traditional military doctrine; reflecting the isolationist roots of national policy; a lack of understanding both by statesmen and soldiers of the primacy of politics in war and peace; and inadequate governmental machinery for fusing political with military objectives.

Efforts To Build on Experience

The greater part of the book is given over to Walter Millis for a critical analysis of hopeful attempts to incorporate such "lessons" into governmental machinery for policy and administration. Like Mansfield, Millis unfortunately did not attempt to organize a summary of the lessons from this later period. These are scattered throughout his six chapters. Conclusions of major interest to students of public administration would include the following:

1. The public policy controversies following World War II—such as the administration of occupied territory, the regulation and control of atomic energy, and defense organization—were not two-sided struggles of civilians against the military. Usually three or more interest groups were involved, the most important of which were the uniformed military bureaucracy (often severely split among themselves), the civilian bureaucracy, and the elected political representatives in Congress. Millis concludes that none of the controversies involved valid questions of locus of power. Millis perhaps has overlooked some fundamental power struggles when he suggests that these issues reflected simply problems of balancing violent and nonviolent components in national policy. But he is correct in observing that, in the debates, military and civilians participated on both sides, with the new corporate institution, the Joint Chiefs of Staff, often "in the middle."

2. In surveying the important national security decisions in the decade since World War II, Mr. Millis found that the National Security Council failed in fulfilling hopes many had for it. National policy in important instances was not made according to the elaborate NSC procedures but rather "... on a hasty if not extemporaneous basis." And many really basic strategic issues, regarding nuclear weapons, conventional forces, and the assignment of military functions, have, in spite of NSC and of "unification," gone unresolved. Although the NSC mechanism may now possess a certain "mechanical neatness," Millis wonders whether really effective policy is "... susceptible to this form of mass production, packaging and distribution."

3. Postwar reorganization of the military establishment produced a system, in which civilian and

military control was intermingled all along the line. For example: "There was no point in the whole budget process at which the soldiers were not being ridden by the civilian budget-makers, and no point at which the civilian budget-makers were not being ridden by the soldiers, with neither in a position of clear responsibility for the results." The later trend toward centralization of power in two principal, sometimes competing jurisdictions, the Office of Secretary of Defense and the Joint Chiefs of Staff, is viewed with uneasiness by Millis. He is unwilling, however, to accept a single chief of staff proposal. Fearing the implications of "monolithic military power," he favors the existing military "committee system," but civilians must not dodge the "arduous responsibility" of ultimate decisions. Under a more centralized military staff, "... the nation would lose the creative values of difference, of variety and of debate."

4. Millis is sharply critical of congressional performance in the 1945-1955 period. Congress ought to play an important role, particularly in exercising its power of the purse. After considering congressional performance in various events of momentous importance, Millis feels compelled to conclude: "The legislature, on which the authors of the Constitution placed so much reliance as the final regulator of civil-military affairs, has in modern times proved unsuited to discharge the function." No suggestions are offered as to how Congress might better equip itself to restore the constitutional balance.

Millis' survey contains many other acute criticisms of the major defense matters of the period, including a skillful summary of the Truman-MacArthur episode in the Korean War, arresting comments on the performance and pretensions of governmental intelligence agencies, and wise observations on the importance of good communications, the limitations of staff work, and the evils of secrecy, to name but a few.

Organizing for Effective Policy-Making

Those in the White House, on Capitol Hill, and elsewhere, who are now studying reorganization of the national security policy mechanism should ponder his comment:

It may be that nations, like men, will never be all-knowing, all-wise and all-powerful; and that the trinity of intelligence, policy and strategy, the one proceeding from the other, will never find any valid counterpart in the real world of desperate expedient and stratagem in face of the unexpected and unprepared-for—the world which we normally seem to inhabit.

Millis does not spell out the organizational implications of this observation, but he is implicitly scornful of panaceas in the form of particular organizational mechanisms.⁷ Yet this reviewer draws the inference that better leadership, better policies, and improved organizational structures are urgently needed. Danger exists of course that a preoccupation with reorganization might blind us to basic policy issues. Reorganization often is accepted as a substitute for a resolution of basic issues. National security reorganizations in 1947, 1949, 1953, and 1958 tended to be regarded as ends in themselves at the cost of neglect of some fundamental policy questions. More intellectual energy has been expended on the jealous protection, untangling, or rearrangement of bureaucratic jurisdictions than on the purpose to be served by massive military and other cold war institutions.

Poor organization, particularly that which today caters too much to the concept of administrative federalism (as in the Defense Department's relationship to its sub-departments) and to the use of committees to develop intelligence, policy, or strategy, certainly can inhibit and obfuscate positive policy solutions. A greater danger is that the machinery of advice, to use Don K. Price's phrase, can overwhelm and grind down a President or a Secretary of State or Defense. One result is as many separate policies as there are persuasive government agencies; another is that *status quo* too often wins over innovation.

One may grant the general validity of the Millis-Mansfield-Stein thesis: that the line is blurred between civil and military factors in policy-making. Even so, there is no need to blur the basic principle of civilian control. This principle is nowhere more concisely stated than in President Eisenhower's words: "Basic decisions relating to the military forces must be made by politically accountable civilian officials."⁸

An ideal organizational structure for this purpose is one which permits clearly fashioned policy alternatives, particularly pro-

posals for innovation, to rise to the top of the Executive (or congressional) hierarchy and which guarantees the ultimate civilian decision-maker the capability of identifying significant issues. The structure should also provide him with the information and knowledge required for decision. An organization which fuzzes up the basic issues and alternatives as they rise to the top may serve bureaucratic, local, or commercial interests but not the national welfare and common defense. Civil-military conflict on issues inevitably will occur at the various levels of the governmental hierarchy. An ideal administrative structure provides the responsible decision-maker at each such level with the capability of making the proper synthesis from diverse and competing elements. An ideal product is, finally, a well-orchestrated, presidentially-conducted "concert of judgment."⁹ Only in this way can *responsibility*, a principle vital equally to effective administration and democratic government, be meaningful. A major theme of the Millis analysis is that many of the most important national security decisions of the past decade have been irresponsible in the sense that they were made with little or no debate by the public, the press, or even by Congress. Responsibility is not now an attribute of the countless committees, shrouded in secrecy, from the "chiefs" of the National Security Council and the Joint Chiefs of Staff to the "indians" of the interdepartmental working groups. The theoretical function of these groups is to provide information and advice. Here is the essence of a modern concept of civilian control: the military professional should function not as a politically responsible decision-maker but as a consultant and adviser outside the line of fire of political responsibility. A requisite for successfully applying this theory is a corps of politically accountable civilians competent to pass judgment on the various kinds of advice, particularly scientific and military advice. The weakness in the existing system is in part the failure of civilians to develop an ability in military and technological affairs even matching the competence many military professionals have gained in public affairs.

⁷ To be up to date with Mr. Millis on this subject, see his pamphlet "The Constitution and the Common Defense," The Fund for the Republic, February 1959.

⁸ Message to Congress on Reorganization Plan No. 6 of 1953, April 30, 1953.

⁹ See Arthur W. Macmahon's elucidation of this in his *Administration in Foreign Affairs*, University of Alabama Press, 1953, Chapter 1.

Balance by Expertlessness

The nation is perhaps spared an unfortunate imbalance in the civil-military equation today by one fact: no consensus exists among military professionals on the strategic requirements for national security. Indeed, considerable doubt prevails as to who exactly is the "expert" on the "new warfare" which technology and world politics have thrust upon us. This lack of unanimity has the advantage of insuring the flow of diverse advice on plans and requirements. This, along with the budgetary whip, tends to keep civilian control a reality. But it does not necessarily produce the policies and responsibility needed both for national security and the continued health of democratic government.

Arms and the State makes no frontal assault upon these basic issues of public administration. But it is another valuable addition to the rapidly filling five-foot shelf of volumes on contemporary national security policy and

organization. This kind of book might be worth rewriting every five years or so as new sources are opened, additional case studies are developed, and additional authoritative monographs appear.¹⁰

¹⁰ Forthcoming works, in addition to the Twentieth Century Fund case studies, which should add insight to some of the issues left unresolved in this book include: *The Professional Soldier* by Morris Janowitz, who is making a broad sociological analysis of American military professionalism; Walt W. Rostow's *The United States and the Diffusion of Power*, which surveys American performance in war and peace in the twentieth century; the case study by Richard C. Snyder and Glenn D. Paige of the United States decision to resist aggression in Korea, and John W. Spanier's analysis, *The Truman-MacArthur Controversy and the Korean War*; Gene M. Lyons and John W. Masland's "The Education of Civilians for Responsibilities in the Formation of National Security Policies"; a civil-military relations volume of essays prepared for a symposium at The Ohio State University in February 1959; and a research project on Federal Executives which includes a survey of the social backgrounds of American military professionals by W. Lloyd Warner, Paul P. Van Riper, and Norman H. Martin.

Extending State Boundaries—but Not Horizons

By GUTHRIE S. BIRKHEAD, Syracuse University

THE ADMINISTRATION OF INTERSTATE COMPACTS, by Richard H. Leach and Redding S. Sugg, Jr. Louisiana State University Press, 1959. Pp. vi, 256. \$4.50.

THE processes of propagation, conurbation, and automation are making things in America more and closer all the time. Older governmental machinery and methods appear progressively less adequate. Boundary lines bound fewer things, and state and local self-sufficiency (if they ever existed) recede further into history. Among the suggested devices for dealing with the increasingly serious conditions of activities traditionally left to states—education, water, other natural resources, transport, and so on—is the interstate compact. *Faute de mieux*, compacts may be increasingly used. If that occurs, however, Richard H. Leach and Redding S. Sugg, Jr. have little to report that makes the prospect palatable. Most of their claims in behalf of compacts are modest, and rightly so.

After a brief history of compacts, the book describes and criticizes thirty that have been instituted since 1921. The methods of study are traditional—analysis of interviews, correspondence, and a body of literature.

Controls on Multi-State Agencies

The authors first examine the old charge that compact agencies are irresponsible, analyzing at length state controls over them. There are, to be sure, a number of formal, legal devices by which governors, other administrators, or courts may check each compact agency. Some of the controls are based on the compact and some on constitution, law, and usage that apply to all state agencies. The authors deflect the irresponsibility charge to the states proper: the controls are little used, and state officials "neglect" compact agencies. "Unrelated to the activities of ordinary state departments and agencies, the compact agencies are left to their own devices,

frequently overlooked, and sometimes forgotten altogether." The authors present ample evidence of the unsatisfactory character of state administrative and legislative performance with relation to compact agencies—old wine in a new bottle. They do not, however, openly indict the states, and any other criticism of states in this volume is inferential only. Messrs. Leach and Sugg instead urge that more positive ways of relating state policies to interstate policies are needed, and they review the scant experimentation along that line. New York's Joint Legislative Committee on Interstate Cooperation has provided good communications between legislature and interstate agencies, while in West Virginia a Legislative Auditor's Office and in Kentucky the Legislative Research Commission have tried to centralize contacts with interstate organizations. The authors rightly point out that Congress also lacks good ways to work with or watch compact agencies, despite its concern with them in recent years.

Most interesting in this connection are the growing cooperative relationships among compact staffs and officials in state and federal bureaus. These are mostly professional ties, engineer with engineer, sanitarian with sanitarian, biologist with biologist. Such relationships deserve study, for these officials see a lot of the work of the compact organizations. Furthermore, scientific and engineering standards are important constraints on compact operations. In all, some of the very strongest supporters and opponents of compacts inhabit state and federal bureaucracies.

Despite their indictment of state neglect, the authors of *The Administration of Interstate Compacts* are scarcely worried about the lack of attention paid by state officials or other persons to compact organizations:

The significant question is whether an adequate internal, subjective sense of responsibility—of dedication to the public welfare—has developed in the members of compact agencies generally and in their staffs so as to make external checks unnecessary. And this question must be answered affirmatively.

Dedication to the public welfare is a vital attribute of the democratic administrator. Whether it exists, however, can scarcely be determined objectively. Nor is it at all clear why other means of ensuring responsibility are not

equally important and should not be of equal concern to public, administrator, and law-maker.

How Interstate Compacts Work

The 30 compacts under scrutiny in this book are divided roughly "according to the sort of power and responsibility which they delegate to interstate agencies" into 7 "technical" compacts (water allocation), 14 "study and recommendatory" compacts (all but 4 in the field of natural resources and all but three centering in the eastern half of the nation), and 9 "operating" compacts (for Eastern bridges, ports, and parks).

The "technical" compact agencies merely supervise state adherence to water allocations set by compact. "Study and recommendatory" agencies are confined to exercise of persuasion and to promotional techniques; they are special pleaders in disparate fields—for example, higher education, marine fisheries, oil conservation, and water pollution control. The "operating" agencies alone have been given significant action programs, in nearly every case because unilateral state efforts have failed. The Port of New York Authority is far and away the largest of the nine operating agencies—it has over five times the employees of the next in size. In this and other respects it is still today, as it has been for a quarter century, the best evidence compact proponents can display.

Compact agencies rarely have or wield regulatory powers. The authors do not feel this is significant—indeed they strongly de-emphasize the powers to compel compliance possessed by the Interstate Sanitation Commission (ISC) and the Ohio River Valley Water Sanitation Commission (Orsanco). Messrs. Leach and Sugg quote an ISC publication to show how small a part the enforcement power has played in its success. On the other hand, it is a fair hypothesis not examined in this book that whatever success ISC has enjoyed has stemmed rather directly from its early assertion in New Jersey courts of that enforcement power against localities. Furthermore, one is astonished to find that Orsanco has avoided using its enforcement power "... with good reason: its record of accomplishment has been better without it."

In chapters 3 to 5 there is a useful examina-

tion of the ways in which interstate commissions work internally, of their professional staffs, and of various personnel problems. Once more, after analysis of the literature and of correspondence and interviews with commission and staff members, Messrs. Leach and Sugg conclude that commission members are "independent, interested and responsible . . . pioneers in government." Staff members are "able, dedicated" and have "remarkable *esprit de corps*."

The authors conclude in general that all compact agencies ". . . have made significant contributions toward the solution of the problems they were designed to meet." The chief reason for this success has been "their contentment with the status of decidedly state instrumentalities." The agencies ". . . must be regarded as the carefully selected tools of energetic states anxious to exert their powers effectively." How this finding squares with the earlier indictment of state relations with compact agencies is not clear, nor is it evident why the states as a whole are termed "energetic." "The states have made it clear from the beginning that they like the prospect of independently powerful interstate authority as little as they like the possibility of still greater federal control." The reader does not find here explanation of the process by which state governments, so often found lacking in sound policies and administrative practices, by means of neglect have engendered good works by compact agencies.

Among the general criticisms of compacts not dealt with in this book is that unanimity must exist among negotiators before a compact can be accepted. This seems to carry over into compact operation in the form of a tendency to compromise at the lowest common denominator and always to rely on the soft sell and touch. The authors generally adjudge this tendency to be a favorable quality of compact agencies, although they do not essay a detailed evaluation of the results of agency operation.

What Compacts Are Not—but Might Be

Messrs. Leach and Sugg believe that compact framers have not intended compact agencies to be a "third force" in American federalism; and, all things considered, that has not happened. Perhaps the only exception

is the Port of New York Authority, which the authors offer as their first example that compact agencies have lived up to the expectations of their creators. The Port Authority, however, through most of its life has pursued functions different from those originally intended. Furthermore, its successes are perhaps related intimately to three facts not common to other compact agencies: it has become strongly identified with a single metropolitan area though it sprawls across state lines, it has its own sources of finance, it has been cut somewhat more adrift from its party states than have other compact agencies.

There is no treatment herein of the financial problems of compact agencies. Such a study would throw additional light on and probably change some of the findings in *The Administration of Interstate Compacts*. And there is as much room for innovation in the realm of compact financial needs and practices as there is for study, and perhaps more. State governments have been backward about providing funds to compact agencies, especially to those with operating functions, and some efforts to create compacts seem to have failed in the face of the superior finances of the national government. In the natural resources field, for example, operating compact agencies will require large capital expenditures. Such agencies will appear and will succeed only when the money appears—from state appropriations, operating revenues, federal appropriations, grants-in-aid, or otherwise. Other conditions must probably obtain, to be sure—public consent, a workable division of functions, but consideration of fiscal needs is germane to any discussion of expanding the use of interstate compacts.

If federal dollars are by some means to go to interstate compact organizations, if these organizations are to engage in activities on which federal agencies now work, provision will probably have to be made for more direct expression of the national interest in their daily operations. Congress as well as federal executive officials will demand it, and the rationale is indisputable. Compact agencies are in effect state instrumentalities today, as Messrs. Leach and Sugg find, but they might become state and federal instrumentalities tomorrow. The federal system could surely accommodate such a turn of events. Still there

have been disappointingly little experimentation and innovation with the compact device. There has been little response to the challenge made in 1925 by Frankfurter and Landis in their classic statement of compact potentialities.

Most compacts are merely extensions of state authority. They are ameliorating little more than the geographic inadequacies of the states, and not always that. There is more than

that to be done. Other shortcomings of the states could be offset—slipshod management and depleted pocketbooks. Increasingly serious problems need to be solved in a land becoming internally more interdependent all the time. By statesmanship, the compact could be exploited for positive ends, not as a wall against federal encroachment but as a responsible means to getting things done. There are few signs today that that will happen.

Testing Loyalty and Security

By H. ELIOT KAPLAN, President, New York State Civil Service Commission

LOYALTY AND SECURITY, by Ralph S. Brown, Jr. Yale University Press, 1958. Pp. 524. \$6.00.

WHEN the Hatch Act of 1939 was enacted it stirred considerable excitement among academicians and public employees. They were concerned then primarily with the law's restrictions on political activities of public employees in the federal service and those holding positions in state services where their salaries were paid out of federal grants-in-aid. The fear was that public servants would be reduced to "second-class citizens" because of what was viewed as an unwarranted infringement on their civil (political) rights. We were not then engaged in the war, so little attention was paid to the provision in the Hatch Act requiring public employees to take a loyalty oath. But the Act was implemented by a series of "loyalty tests" during the war, security-risk programs blossomed, and soon both loyalty and security-risk plans came into full bloom.

Our civil liberties were further restricted with ever-increasing blasts of "cold war." The hotter the war grew, the more fearful we became and the greater our suspicions of a challenging political ideology, resulting in stricter and more complex interpretations and application of our loyalty and security-risk programs. It is probable, however, that we have reached the peak in our fears of the communist subversives (at least we may hope so), and it is time that we got down to realities

and appraised what price loyalty and security risk.

Fortunate and timely is the comprehensive analysis of loyalty and security-risk programs in both government and private employment by Yale Law Professor Ralph S. Brown, Jr. His treatment of the subject is in a sense an "anatomy" of the unique creatures "disloyalty" and "security risk." His forthright, incisive comments will prod personnel administrators, security-risk officers, and others sharing the responsibility for evolving a sound and fair program of security risk to renew their thinking along rational lines and to review the aim which such programs should seek to accomplish. Professor Brown points out that the misguided evolution of the loyalty and security-risk programs was not alone due to the "predilections of security officers," but may simply be "the faithful exertions by them of a 'dominant public policy,' " which policy, in turn, "has a multiple origin in our fear and alarms about security." It all "boils down to the terse phrase: take no chances."

Dissecting the loyalty-security tests administered by private employers and labor unions as well as governments, Brown calls them "even more of a hodgepodge than those of state and local governments." This is quite an indictment considering his severe criticism of government programs.

The author's estimate (based in measure on official data) of the cost of loyalty and security-risk programs is revealing: more than \$37

million a year in direct administrative costs for the federal programs. If we were to add to his estimates the less direct costs, plus the costs of state and local government and private industry programs, the total probably would be fantastic.¹ But as Professor Brown indicates, the cost is only one element of the problem and perhaps not even "the most crucial." He points out that we overlook the distinction between losses to the government (and, I suppose, to industry) and losses to the whole community: "It is the multiplication of cases and the creation of an atmosphere of harassment and insecurity that harm government without any possible offsetting gains for other groups."

Loyalty Tests

The clarity with which Brown distinguishes the issue of "disloyalty" from that of "security risk" is refreshing and revealing. If the volume does no more than help to clarify this basic distinction in the public mind, it will be invaluable. But its value goes far beyond this. Nowhere, I believe, will one find so painstaking an analysis, so clear a discussion, so intensive a treatment of the subject.

His chapter on the impact of employment tests will evoke sympathy for the thousands of persons in public and private employment who have been victimized by the vagueness and indefiniteness of what has turned out to be their burden of proving loyalty—and that without a semblance of "due process." Anyone who has even casually explored the problem of loyalty investigations cannot help but sympathize, if not agree, with Professor Brown's conclusion that the only solution is to "get rid of them." He points to the excessive cost of such loyalty programs, the ineptitude of most of those vested with responsibility for discerning loyalty, and the "disruptive element [loyalty tests have introduced] into party politics and other disputed factors of public policy." Further "they have injected loyalty standards into kinds of employment where their relevance is slight, and where they appear to inhibit freedom of thought and

action without any compensating gains. Worse, they have dangerously relaxed our national standards of what constitutes disloyalty. The real traitors and would-be traitors are thought to be so hard to isolate that we let 'reasonable doubts' take the place of proof."

Terminating loyalty programs, he points out, would not leave employers impotent. He believes there is sufficient basis in present law forbidding employment to the relatively few advocating subversive activities. Other laws, properly enforced, would lead to punishing of violations by seditious employees when their acts come to light.

Brown is perhaps unduly optimistic in this respect and oversimplifies the problem. He does, however, assume that loyalty programs may continue and recommends to their administrators four rules: (1) avoid vagueness, (2) avoid regulating *ex post facto*, (3) avoid penalizing "innocent associates," and (4) generally stay within a broad range of "reasonable qualifications."

Security Risks

As to security-risk programs, the author accepts their necessity though he resents their infringement on individual liberties to maintain "security" for society. He argues that the approach of security officers has been unfortunate as has been the tendency to confound the label "security risk" with "disloyal."

The author outlines a new approach to personnel security; its rationale is based on limiting the program to sensitive jobs and providing opportunities for those deemed questionable risks to transfer to nonsensitive jobs. Unwillingness to allow the accused to confront his accusers, while not desirable, becomes acceptable if the program is confined to sensitive positions, he writes.

The Future: Probability and Prescription

The author is not too sanguine that the trend toward indiscriminate loyalty and security-risk investigations will soon terminate, not so long as the present atmosphere of fear of communism prevails. He sums up his forecast:

The record of the last decade, however, suggests strongly that the hardest thing to do with loyalty programs is to confine them. The development of

¹ The return from that cost may be reflected by the experience with New York State's Security Risk Law. Out of 829 completed investigations during 1958, no basis was found for a single disqualification of examination candidates or employees.

the federal programs has left the simple problem of the certified Communist far in the rear. All the arguments for excluding him have been carried along into vast operations that today rarely turn up even a probable Communist. . . . A natural preference for loyal civil servants seems destined, in the present era, to grow into a formidable structure of investigation, inquisition and mistrust.

The concluding paragraph of the volume tersely expresses the author's thesis.

It would, however, be naive to suppose that "all of us," even though we are responsible as citizens, are going to experience a spontaneous impulse to reform. Many are, and always will be, indifferent to these problems. Others consciously or unconsciously reject toleration. Confident of their own absolutes, they find virtue in imposing conformity. There remain the large numbers who, though they have a strong concern for individual freedom and dignity, have been overawed. Chilled by the insecurity of the atomic age, they have not questioned the demands that have been made in the

name of security. Valuing loyalty, they have not challenged specious definitions of disloyalty. Detesting communism, they have swallowed the excesses of anticommunism. On these people I urge the two dominant conclusions of this book. First, that loyalty and security tests have been practiced with too much rigor and too little humanity. Second, that these tests needlessly impair the great freedoms of belief, of speech, and of association enshrined in the First Amendment.

We have reason to be grateful to the Louis S. Weiss Fund and others mentioned in the preface, who assisted in making the book possible. The choice of the author by the Yale Law School was a happy one for he was able to bring to the study a vast experience as well as a scholar's objective and dispassionate point of view on a sensitive and controversial subject. No one responsible for personnel administration, public or private, can afford to be without Professor Brown's book.

Three Heads Are Better than One

The advantages and disadvantages of multi-headed agencies have been debated for many years. One plus value, so far as a particular type of operator is concerned, has probably not heretofore been publicly discussed.

A bureau chief was convinced that his staff needed new office furniture. He explained this problem to the chairman of the three-man commission which administered the agency. The chairman explained that the remaining appropriations for office equipment would just about cover purchases of greater priority which had already been reviewed and approved. If the agency had been headed by a single administrator, the matter would undoubtedly have been dropped at that point. In fact, even with this type of organization, almost any bureau head would have conceded defeat. But not our boy.

He proceeded immediately to a second member of the commission, who responded in exactly the same manner as the president. Still undaunted, he continued on to the third commissioner who, being both unaware of other commitments and unalert, indicated that he had no objection. And so the bureau chief, grateful for the existence of the commission form of government, bought his furniture.

—William Brody, Philadelphia Department of Health; formerly with the National Jewish Hospital in Denver, the U. S. Economic Stabilization Agency, War Labor Board, and New York City Health Department.

Developments in Public Administration

Compiled by WILLIAM B. SHORE

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Personnel Limiting Federal Computer Use

While many business firms have been disappointed in automatic data processing and have slowed down to take another look, federal agencies have anticipated a doubling of positions directly related to ADP in 1959 over 1958 and another 28 per cent rise between 1959 and 1960. Since these predictions are from agencies with at least "a fairly good start" in computer use, and it is "very probable" that other agencies will come into the field, computer manpower needs may be even higher, though there are trends in equipment and programming methods which may reduce the size of teams needed to do the same job. All in all, "it is clearly evident that sheer manpower requirements could be a limiting factor on growth of ADP," a management consultant, Lester B. Knight and Associates, reported to the Budget Bureau late this spring after a study of ADP manpower problems. (Hearing before the Subcommittee of the House Committee on Post Office and Civil Service, *Use of Electronic Data-Processing Equipment*, Appendix C (June 5, 1959).)

More coordination and cooperation among federal agencies was advocated both by the consultant and, earlier, by the General Accounting Office. Technical assistance should be provided by ADP-experienced agencies for those planning installations, including taking over the early stages until a team is developed, transfer of experienced personnel as cadre for new installations, and bringing experienced top management together in seminars with those newly approaching ADP. We now know enough to justify standardization in selection criteria, pay and perquisites, and development of ADP manpower, the consultant added. Sharing of equipment and training

materials could be useful. A central planning unit should ration scarce manpower, survey and allocate training facilities both in and out of government, and schedule new installations to absorb those who become superfluous where installations overcome initial problems and work into regular operations.

Training of top management, management analysts, and supervisors for ADP has been inadequate, the consultant felt. Only about one bureau in six of those surveyed is doing much to prepare top managers, who must grasp the systems concept (i.e., that all systems relate to an over-all system and each affect the whole), prepare for the organizational and procedural changes that computers necessarily bring, and know what the computer can and cannot do and how to use its product in decision-making and control.

Systems analysts should understand programming, auditing problems, the design of input, output, and formats, the relationship of other machinery to the computer, and the "systems" approach. This is "the gravest training problem of all." Supervisors not only need to understand the machines but must change from "seat-of-the-pants" operators to scientific managers.

Though most ADP personnel have been transferred from other work in their own organization, usually on the premise that knowledge of pre-ADP procedures is valuable, the consultant disagreed, asserting that "too much such knowledge might be a deterrent" because "a new conceptual scheme" is needed.

Most disappointments thus far have come from thinking of computers as substitutes for clerks. In a few very large-scale paper operations, such as Treasury checkwriting, clerks have been displaced at a saving; generally,

however, analysts of both business and government emphasize that savings will come only from faster information (e.g., reducing inventory needs—a significant saving for the armed forces) or better information for management. Therefore, successful ADP depends on successful over-all management. (See 7 *Federal Accountant* No. 3 (March, 1959) as well as the House hearing.)

Among expected developments are integration of business and government data, already begun on a very small scale with firms submitting social security wage records on magnetic tape, and character reading by the machine, omitting the costly transfer of data to tape, with its attendant errors.

Displacement of clerical personnel, as opposed to demand for new personnel, does not seem to have produced a personnel problem due to the high rate of turnover in the clerical positions eliminated. In fact, many employers cite high turnover as a motive for switching to computers. (Though we are told that a second generation of computers has been born, there is no record of a pregnancy.) However, the Labor Department cautiously suggests there "may be . . . a declining rate of growth in clerical employment if the use of electronic equipment becomes widespread," though "even in such routine jobs as those of file clerk and adding, billing, or calculating machine operator, many employment opportunities should continue to arise throughout the early 1960's" since installation of EDP is a slow process. All in all, EDP "may reduce the proportion of women employed in clerical occupations" partly because of the around-the-clock schedule usually required by high computer rentals. ("Automation and Employment Opportunities for Officeworkers," U. S. Department of Labor Bulletin No. 1241, October, 1958.)

In State and Local Government . . .

RAND corporation, a nonprofit research organization, this fall began a two-year study of California state and local government activities which are suitable for automatic data processing. Governmental functions will be analyzed to identify information needed for decision making and record keeping and a more effective system for data preparation, processing, storage, and presentation will be developed.

Remington Rand Corporation also has intensified its computer education and sales programs to state and local governments, and IBM has brought out a new computer system for smaller units (1401) which may tie in to punched card equipment. It reads and punches cards, separates them, calculates and prints. IBM suggests its use for payrolls and utility accounting, for example.

And in Business . . .

Computers have failed to achieve expectations, primarily of costs and savings, in "virtually every case" of 200 installations six months old or more surveyed by two senior analysts of John Diebold & Associates, management consultants. Mr. Diebold reported to the International Systems Meeting a year ago. (Citation below.) More recently, a man in charge of an EDP unit criticized the broad indictment of EDP for business that has been growing but admitted that "many installations are failing to produce predicted savings" because the preliminary study "ignores or understates preparation costs, fails to attempt a forecast of future volume, ignores the peripheral system surrounding the machine, understates the cost of permanent staff, and fails to time with sufficient care to evaluate the overtime requirements." Also, many firms installed EDP more in fear of what their competitors were doing than in consonance with a plan of what it could do for them. Furthermore, there seems to be "a propensity to mismanage this type of project." (Felix Kaufman, "EDP and the Disenchanted," 1 *California Management Review* 67 (Summer, 1959).)

Still, both he and Diebold emphasize that, properly managed, computers can be useful tools, "but," Diebold warns, "they are the most expensive ones that have ever been at our disposal." He urges tighter management, including development of performance standards for computer operations, better records of down time of the machines, better preparation of the data to be used. Efficiency in the EDP unit is doubly important, he notes, because the tremendous hourly cost of computers seems to encourage lax management elsewhere in the organization since the cost of waste appears minuscule in comparison to computer costs.

Computers and Decentralization

Is decentralization compatible with computers? Yes, replied a British business controller to the systems meeting. "We start with the thought that the most important records are those required by the lower levels of management. . . . However large the business, each man is enabled to keep the kind of records that an intelligent trader in business by himself might be expected to keep." He should know whether he is meeting production standards before his superiors; records of higher echelons should be based on an accumulation of lower-echelon records. (John Diebold, "Bringing Management to Electronic Data Processing" and Geoffrey J. Mills, "An Appraisal of British and European Business Systems," in Colver Gordon, ed., *Ideas for Management* (Systems and Procedures Association, 1959).)

But EDP may in fact encourage centralization, a business observer finds. (Edward McCreary, "Decentralization—On the Way Out?"—74 *Dun's Review and Modern Industry* July, 1959.) ". . . Hundreds of companies which decentralized for growth during the postwar boom years are now . . . recentralizing. . . ." A "device that is going to make it easier for companies to centralize control of operations is the office electronic computer. . . . Computers are beginning to take over the accounting of all company production, sales, and cost figures. Computers are already being used to program production in some plants." Many organization specialists say that "top managers decentralized authority in growing companies not because they necessarily wanted to, but because they had to. They couldn't keep abreast of the details, so they turned the job over to the man on the scene. Now, with staff groups [including operations and product researchers and long range planners] and computer information systems making it possible to routinize previously complex jobs and to assimilate more information quickly, management, quite naturally, has started to centralize again.

". . . A division executive . . . notes that five or six years ago headquarters would say, 'Well, what do you fellows plan to do?' Now, headquarters is likely to have a complete development plan, which it has been quietly selling to divisions for six months. 'They usually

take our advice,' the head of one large manufacturing company's long-range planning groups says of division management."

"The renascent 'hard' school holds that 'permissive' or 'participative' management, although based on excellent and democratic ideals, just isn't practicable in the vast majority of companies. . . . Most companies actually are run by the president and a bare minimum of other top executives, who, by their very nature, are not prone to delegate."

Resignation Instigates Study of Commissions

Regulatory commissions are under investigation by the Executive branch following a 75-page criticism of their organization and processes by Civil Aeronautics Board member Louis J. Hector when he resigned in September. (Richard E. Mooney, "White House Eyes Role of Agencies," *New York Times*, September 21, 1959; Hector, "Memorandum to the President: Problems of the CAB and The Independent Regulatory Commissions," September 10, 1959, mimeographed (available from the Office of Public Information, U. S. Department of Commerce, Washington 25, D. C.).)

Hector charged that the public is badly served by independent commissions because policies are not coordinated with other government actions nor subject "to the general policies of the President." Also, the commissions are poorly administered, and much of their fact-finding inappropriately and inefficiently follows the methods of judicial adversary proceedings. The regulated firms are badly served because "the agencies are long on judicial form and short on judicial substance." Both public and industry suffer because the commissions make little effort to define their policies other than through case-by-case decisions, and policies often are reversed without warning.

Among examples of inefficiency, he cites (1) a two-and-a-half year study by an examiner preparing a plan of local air service for a seven-state area in which no policy had been laid down by the board, no communication took place between the examiner and the board during the study, evidence was collected simply by allowing interested parties to volunteer it, and, in the end, the board rewrote the decision, spending six more months on the job; (2) a similar study in which not only the

examiner and the board but also the White House developed separate plans (because overseas flights were involved)—all of which took five years; (3) the involvement of all commission members in petty details of administration, despite efforts to centralize administration in the chairman, because commissioners, often sharply divided on policy, do not trust the chairman to be neutral in administering it, and because policy is so vague that delegation of "procedural decisions" is "impossible"; and (4) "in almost every case before the CAB, every significant conclusion of the examiner on important issues is challenged by the losing parties, and the appeal procedure to the Board covers every aspect of the case—legal, factual and policy."

As to fairness to interested parties, criteria for decisions change unexpectedly and rapidly. For example, in decisions on awarding routes to carriers, the value of strengthening small carriers grew in a series of cases in a single year from one of several criteria to almost the sole criterion; two years later, the criterion of ability to provide better service became the telling one—with no announcement of policy change intervening. Most striking, board members make decisions without fully mastering the relevant evidence, and they do not write their own opinions so they never need to wrestle with the material before coming to a conclusion. The board's bare conclusion is given to staff members with little or no discussion; they then rationalize an opinion that will withstand an appeal to court. In this process, policy is further obfuscated.

As to coordinating actions with related programs: (1) CAB can obligate "large sums . . . with no coordination whatever with the Bureau of the Budget, or the President and with no prior approval by Congress"; (2) "new fleets of civil jet aircraft . . . were justified by the carriers to the Board in part by defense considerations. And yet there has been no joint planning, no discussions, not even any high-level exchange of views between the CAB and the Defense establishment on these matters"; (3) because of possible danger of executive branch influence on CAB, Congress sharply criticized CAB's membership on the Air Coordinating Committee, "the only instrument for coordination of civil aviation policy in recent years."

CAB (and other commissions) responsibilities are incompatible. Responsibility for promoting the industry often conflicts with responsibility for regulating the industry. For example, "every airline of any size always has a case of some kind pending before the Board," so CAB cannot discuss any policy, including its promotional responsibilities, with the lines without violating the "strict letter of judicial proprieties." In at least two recent cases, industry promotion took precedence: when the CAB decided not to investigate loans to carriers which, "it was generally agreed" might involve a serious problem of illegal control or conflicts of interest, because "the investigation might have an adverse effect" on efforts of the carriers to obtain new financing; and when the board "largely nullified" its successful policy of undoing interlocking controls consummated without CAB approval "because of what the Board conceives to be its promotional responsibilities."

Most of these criticisms have been levelled against regulatory commissions in the past (without arousing White House concern), many made recently by James M. Landis, who has been a member of three major commissions, by Professor of Government Louis W. Koenig, by *Time* magazine, and by *New York Times* reporter Anthony Lewis, among others, reprinted in a little book, *The Independent Federal Regulatory Agencies* (Leon I. Salomon, ed., (H. W. Wilson Co., 1959).) Several critics conclude that a major part of the solution lies in better appointments, *Business Week* observing that the dilemma of whether or not commissioners should mix with their clientele cannot be resolved by formal code, only by strong appointments who cannot be influenced by relationships with those whose cases they adjudicate. Hector, however, turns the personnel question the other way: you will get good people, he asserts, only when the job to be done is arranged so a man can have pride in doing it.

Hector proposes an end to commissions, with all powers except adjudication transferred to Executive agencies and administrative courts handling adjudication. Investigation and prosecution perhaps should be transferred to the Department of Justice instead of to the agency handling the related program.

He recognizes the difficulty of separating policy-making and adjudication but feels it can be done, though his observations on the failure of both Congress and the commissions to set clear policies except via cases and on the tight intermixture of general program with individual cases seem to argue nay. Both Lewis (op. cit.) and the House Subcommittee on Legislative Oversight find the separation too difficult. Lewis suggests that a partial solution would be to broaden the program focus of each commission. The subcommittee suggests more study of the possibility of separation.

Hector supports his suggestion that a line agency replace the commissions by contrasting the failure of CAB to solve air safety problems, to encourage air cargo, or to coordinate civilian-defense air policies with the prompt action of the Federal Aviation Agency on these programs when Congress passed them to FAA.

The House subcommittee, particularly concerned about avoiding off-the-record communication with a commission by interested parties to a case, has proposed an ethics code prohibiting and punishing this. In addition, the subcommittee urged that criminal penalties be provided for information leaks from commissions and that speedy action be required on all motions before a commission (or the party be allowed to appeal to court), that Congress try to clarify the commissions' goals and criteria, and that the President make better and nonpolitical appointments. (*Independent Regulatory Commissions*, House Report No. 2711, 85th Cong., 2d Sess., 1959.)

Scholar's View: Same Criticism, Different Plan

After a year's intensive investigation and many years' general study of regulatory commissions, Professor Emmette S. Redford agrees that "there is increasing evidence that they may not be discharging effectively the responsibilities committed to them." He raises the same criticisms as Hector. (*National Regulatory Commissions* (Bureau of Governmental Research, University of Maryland, 1959).)

Like Hector, he sees that "... two basic features ... produce many of the problems of the regulatory systems": the need to "give specific content" to congressional guides,

which are "usually multiple, sometimes antithetic" and the need to make decisions affecting particular persons, which therefore must "be based on a record made at a public hearing"—in other words, the conflict between the quasi-legislative and quasi-judicial responsibilities of commissions, particularly due to the different procedures appropriate to each. Also like Hector, he seeks to separate these processes, but in a less radical way and with recognition that many points still need study.

Though admitting that it is difficult to establish clear standards from the multiple guides under which the commissions operate, he is less pessimistic than other commentators that it can be done by "a group of capable commissioners . . . freed from some case work and . . . resolved to do some hard thinking." To gain time for policy thinking, perhaps commissioners should review decisions of examiners (or of boards of examiners) only by certiorari (i.e., by themselves selecting cases pregnant with policy rather than accepting all cases appealed to them). He also suggests that a policy staff might be useful.

Some types of decisions now made through the judicial process probably could be made more quickly and better using legislative procedures, for example rate-making and deciding the appropriate level of air service for a community. Selecting specific airlines to serve the community could be made judicially later, separating "issues of policy and community need from those of private opportunity." The Federal Communications Commission does this on some questions. Perhaps "the courts will be responsive to the needs of government in the jet and atomic age" and approve new procedures, he comments.

To bring commission decisions into "the community currents which produce politics" and so away from excessive influence by the regulated industry, and to coordinate policies with related action of other government agencies, Redford feels it may not be necessary to replace commissions with line agencies, as Hector proposed. Why not use the pattern of the comptroller of the currency who regulates national banks "under the general directions of the Secretary of the Treasury" or of the Federal Maritime Board which is to be "guided by the general policies of the Secretary of Commerce?" In this way the President

could influence policy without interfering in specific cases. Where there is special need for coordination, as on foreign and overseas air permits, the decision might be left to the President with the relevant commissions acting only as his advisors.

Redford warns that lawyers must be involved in searching for new solutions, because "no new lines of inquiry can move far without their concurring interest. Yet the perspective for the new look might more reasonably be expected to come from those whose primary professional competence is in administration or whose primary interest is in the development of public policy."

Evaluating Education for Mature Managers

"Management is expecting more results from supervisor and management development today than it has in many years," a senior member of Esso Standard Oil's Training Division wrote after surveying training practices of seventeen large organizations including four federal agencies. (George H. Dukes, "A Special Study of Supervisory Development Practices," 13 *Journal of the American Society of Training Directors* 8-11 (April, 1959).)

But how can we evaluate the results?

Mr. Dukes' survey indicates that these organizations are tying training more closely to the individual's job needs, to abilities "which pay off directly in improved job performance and better operations. . . . The practical results management expects are held constantly before the trainer and trainee alike to stress the need for practical application on the job."

Greater efforts at evaluation are also being made, comparing changes in performance before and after training with cost of the program in time, money, and manpower. Measuring instruments, including tests, interviews, appraisal discussions, and performance ratings, are being developed. Programs are audited and rated, too.

But What of "Broadening" Programs?

More skeptical of efforts to evaluate executive and middle-management training, Kenneth R. Andrews—who has been studying business executive development programs for three years—writes: "It is possible at present

to measure the effectiveness of a training program only when its objectives are very specific, ending in measurable skills. . . . The best management development programs are ventures in general education. Multiple criteria are involved, cause and effect are impossible to trace out, and the influence of a university program is hard to separate from other environmental and developmental factors. Some small progress is being made. So far the great growth of the executive education movement has proceeded not from proof of benefit but from the enthusiastic testimony of a majority of those undergoing the experience." (Draft chapter for Frank C. Pierson, *The Education of American Businessmen* (McGraw-Hill Co., 1959).)

Andrews is talking here about university-sponsored programs, which include "42 residential broad-coverage programs in general management or business administration of two weeks or more in length," including some lasting twelve months. In addition, ten liberal arts courses for experienced business executives have been devised, eight still operating. ". . . Neither knowledge nor analytical ability as such is the aim so much as an enlargement in point of view, as an awakened sense of the scope of management competence and responsibility, and the importance of approaching every problem from the point of view of the organization as a whole. . . ."

Admitting that "it is possible . . . to be very skeptical" of a course evaluation by a participant, since he generally feels he is expected to respond enthusiastically, he recognizes "the favorable implications of his selection," and he enjoys associating "under pleasant circumstances with other men of intelligence, ability, and varied experience," Andrews nevertheless felt (at least at an early stage in his study) that perhaps we can learn more about the effect of courses from participants than from other sources. Though "theoretically the most promising" source of evaluation would be colleagues and subordinates, in at least one part of his study this was inconclusive. ("Is Management Training Effective?" 35 *Harvard Business Review* 85-94 (January-February, 1957) and 63-72 (March-April, 1957).)

Participants believe that all but a few men "return to their jobs without being affected at

all. Men usually report a high degree of mental stimulation and significant changes in attitude toward executive responsibilities and other people" and come to "view functional problems in the perspective of the company as a whole" and see "the responsibilities and dignities of management as a profession" and "the relation of company to the economy and the American business system to the world society. . . ." But this "is difficult to trace out in terms of changed behavior" and "it is disappointing to researchers and to teachers to find so little evidence of visibly changed behavior and to find so little change in efforts towards 'self-development'."

Some Course Evaluations

In his earlier analysis, Andrews studied university executive courses for three large firms. At Humble Oil Company, the university course is the culmination of management training which begins at the first supervisory level. As to its effects, most participants say that observers should not expect to see clear change, though some instances are apparent: "men becoming more active and confident in management councils, calling for more quantitative data, starting training conferences with subordinates . . ., discussing more freely points of friction with people. . . ." These did not directly affect productivity.

At Westinghouse, there were many examples of engineers broadened to managers, but since other influences were at work simultaneously with the course—for example, many participants were promoted—the direct impact of the course could not be ascertained.

Administration at an Aluminium, Ltd., plant in Canada changed sharply after management training courses began, but since, at the same time, a major reorganization aimed at decentralization also took place, the effects attributable to the course were blurred. There were, however, many examples of better delegation, some which clearly affected productivity, and of better problem solving.

Among Andrews' conclusions in 1957 was this: "Fortunately, it is possible for management to plan its use of in-company and university executive programs intelligently despite the unalaid ghost of evaluation. . . . We should begin with, stay with, and deal with the needs of an executive for formal educa-

tional experience as he himself sees those needs and as his predecessors in a training experience have come to see them." By finding the needs of the individual within the specific situation, "we can provide an educational experience for executives which will blend imperceptibly into all the influences upon him but which will also, in his judgment, and perhaps in that of others, enlarge his capacity. To prove the quantitative contribution of formal education may remain impossible, and finally be considered irrelevant."

AT&T's Liberal Arts Program

American Telephone and Telegraph sponsors several liberal arts courses of varying length for its executives. From the beginning of the first one, a nine-month course organized in 1953 by the University of Pennsylvania, the firm has tried to evaluate at least the immediate effects through tests of subject matter knowledge, of critical thinking, attitudes and values, and temperamental traits, and through the participant's evaluation of the program. These tests are administered before and immediately after training both to participants and to a control group of persons not attending.

" . . . Great significance can be attached to the aggregate of observed differences consistently in the same direction. . . ." Specifically, those taking the course not only knew and understood more about the history of social, economic, and political institutions, literature, art, ethics, philosophy, and music but saw the relationship of this knowledge to modern business. Values changed, too, away from economic values toward the aesthetic, though participants still felt that profit is the primary goal of business. " . . . In areas where there is evidence of consistent change in social attitudes, the movement is in the direction of what is ordinarily construed as 'liberalism' " and generally away from "conformity in thinking."

However, there has been no effort to find how long these changes last; furthermore, "there is evidence, both from the Evaluation Survey and other studies, that attitude changes are not readily generalized or easily translated into appropriate decision-making or action in dealing with particular and especially ego-involved situations." To try to bridge the gap between knowledge and attitude on the one

hand and action on the other, "integration periods" are set aside in the current program for relating liberal arts coursework to everyday business.

At any rate, the "return to humanistic education" represents "willingness to do something concrete in the way of training men in the right direction— . . . of freedom from that social coercion and those emotional distortions which are at the very root of 'creeping conformism' in American life." (Morris S. Viteles, "'Human Relations' and the 'Humanities' in the Education of Business Leaders" 12 *Personnel Psychology* 1 (Spring, 1959).)

Human Relations Training Effects

In nearly all training courses from the first supervisory level to top management, some aspects of human relations are included. Several evaluations of the impact have been attempted. In 1955, human relations trainers were rocked by a study showing that foremen who had human relations training ended up with less "consideration" for subordinates after a time than those who never attended the course—as revealed both by the foremen's attitudes and by anonymous questionnaire responses of subordinates. Their "consideration" attitudes immediately following training had been significantly raised, but after the decline of "consideration" even a one-week refresher did not significantly change "consideration" scores—if anything, "consideration" was lower than for those who did not take the refresher. The "leadership climate" of the plant was found to have much more effect than training on human relations. (E. A. Fleishman, E. F. Harris, H. E. Burt, *Leadership and Supervision in Industry* (Ohio State University, 1955).)

Some recent evaluations have been more sanguine. Role-playing, for instance, was judged capable of changing behavior if it had "impact," which occurred when the trainee was allowed to criticize his own performance, when he had adequate feedback, and when the course emphasized "a particular human relations factor in a strong, emotional manner," as when a key element in a situation was revealed to a trainee after he had wrestled with the situation and missed the element. Once gained, both the sensitivity to a situation and ability to cope with it were transferable to different cases. Repetition did

not better the effect of a single "impact." This evaluation was based on judges' analyses of participants' sensitivity and ability to cope, revealed by reactions of participants to a case study. (C. H. Lawshe, R. A. Bolda, R. L. Brune, "Studies in Management Training Evaluation, II" 43 *Journal of Applied Psychology* 287 (October, 1959).)

Human Relations Index

A Human Relations Index has been used to measure reactions to several courses. It is based on the participant's choice between two possible solutions to 50 situations, revealing his style of leadership: whether he is oriented to (1) rules, (2) technology, (3) individuals, or (4) groups. The index is based on the assumption that style (4) is better than (3) etc. It has been validated by independent ratings by two clinical psychologists, who used two widely accepted psychological tests, as well as by management. Participants were asked to choose both the "right" solution to each problem and the solution they probably would have used on the job, differentiating their "ideal" from their "actual" leadership style.

In an early use of this evaluation device in 1949, the results of a major effort at human relations training by a large firm did appear to "wash off" after a short time back on the job, though the course raised scores immediately following the course. This evaluation was verified by a second, independent, study of the same course. As with the Ohio State study (above), the climate to which the supervisor returned appeared to affect the retention of the training impact. (Charles W. Nelson, "A Look at Some of the Basic Organizational Forces that Affect Leadership Attitudes and May Cause Management Development Courses to Fail," unpublished paper to the Midwestern Psychological Association, May 9, 1959.)

Using the Index to evaluate human relations training for ten groups at all management levels of a United Air Lines maintenance base, the average score of the "ideal" index (the participant's view of the right thing to do) was shown to be raised sharply after the course, slipped back about halfway a year later, dropped a little more the next year before a second course (but still not as far back as at the start), jumped again after the second course but not as high as it had been after the first course.

"Actual" human relation scores (how participants think they would behave) rose slightly more than the "ideal" score between the pre-course test and the test at the end of the first year, slipped back slightly the second year but, as with the "ideal" Index, less than during the first year after the original course. In interviews, 68 of 88 participants reported that they had tried out one or more methods of democratic leadership discussed in the course; several noted their success. Almost all reported that the course stimulated more intensive self-education.

A later study precipitated out the personal characteristics of those who showed the most progress toward democratic leadership style as revealed by the Index: age 40 or under with a great deal of seniority at UAL, 15 or more years education, and a hobby of competitive sports.

In all, "... we in United Air Lines believe that it is possible to conduct Human Relations Training which will be retained by the participants over a period of time and not be lost. Secondly, we believe it is possible to predict which individuals will get the most out of such training." (Kenneth E. Richards, paper presented to Midwestern Psychological Association, May 9, 1959.)

Undergraduate Business Education

In comparing executive development needs for business executives with those needed in government, a recent evaluation of undergraduate business administration courses made under a Carnegie Corporation grant may be relevant: "First . . . it must be said frankly that most of these programs are not very good. . . . Their academic quality is generally . . . low from the standpoints of course content, of the standard of work demanded of students, of the design of the curriculum, of the subjects covered in specific courses. . . . The huge majority of [business students] take little more than a smattering of courses outside business. . . ." ("Education for Business," *7 Carnegie Corporation of New York Quarterly* 1-3 (October, 1959).)

Evaluation Work in Progress

Two major efforts to evaluate executive development courses for government are in progress, both Ford Foundation sponsored.

Federal administrators (GS-13 and above) who participated in the University of Chicago summer institutes (two- and four-week sessions) and those taking one-night-a-week classes (GS-11 and above) will be compared to a control group via several tests and the rating of superiors and colleagues. A preliminary report is due in January, the final one in July, 1960.

New York University's new executive program for New York City and surrounding local governments also will be evaluated on the basis of the knowledge and skills acquired by participants and attitude changes as observed on the job, and the impact of any change on the agency's operations. Different training arrangements will be compared—one full day a week for fifteen weeks, one morning a week for thirty weeks, one evening a week for thirty weeks, residential conferences for six days a week lasting two weeks, non-residential conferences for five days a week for three weeks, correspondence courses, and a home-study program. Composition of groups also will be compared—all from one agency, some from many New York City agencies, and some from New York City and surrounding governmental units.

Cooperation Grows among Government Units

The Advisory Commission on Intergovernmental Relations established September 24 by the federal government could be seen as part of a trend toward more informal cooperation in intergovernmental relations. Efforts to sort out activities appropriate for each governmental unit and to formalize the allocation of power and responsibility in law, of course, continue, particularly in metropolitan areas. But coordination by cooperation instead of integration by reorganization seems to be winning increased attention and making apparent progress.

Preceding the new Advisory Commission (and still in existence) was the Joint Federal-State Action Committee, whose main activity has been to plan a shift of programs or parts of programs from the federal government to the states. Its premise was mistaken, however, according to one member: it assumed that government in the United States is three distinct layers "which can and should function

independently of each other." The three levels of government, the critic asserted, are irrevocably intertwined. We must ask instead "How can we make the mechanism of intergovernmental relations work better?" (Governor Orville L. Freeman, "Needed: A New Approach to Federal-State Relations," printed in "To Establish an Advisory Commission on Intergovernmental Relations," Joint Hearings before the House Intergovernmental Relations Subcommittee and Senate Committee on Government Operations, June 16, 17, 19, and 22, 1959.) The new Advisory Commission seems to be in line with this advice. (While several governor-members of the Joint Action Committee testified in favor of the Advisory Commission, neither the federal nor the state co-chairman did.)

Also symbolic was the successful fight of the National Association of County Officials to obtain greater representation of counties on the commission (from one in the draft bill to three in the law). Counties, through NACO, are publicly urging their growing importance in American government (for example, through an Urban County Congress held last March) and arguing the value of intergovernmental cooperation (for example, in an editorial by the executive director, "Massive Cooperation," 24 *County Officer* 307 (October, 1959).)

The Advisory Commission

The Advisory Commission will be composed of 26 members, 3 from the federal executive branch, 6 from Congress, 8 governors, 3 state legislators, 4 mayors, and 3 private citizens. It is to advise on intergovernmental relationships in existence, planned, and to be needed—giving, for example, "critical attention to the conditions and controls" of federal grants, reviewing "the overall effect on the Federal system" of proposed legislation, and making recommendations for "a more orderly and less competitive fiscal relationship between the levels of government."

Such an Advisory Commission was recommended ten years ago by the first Hoover Commission. Testimony on the bill last spring was unanimous in its favor, as was the House Committee on Government Operations. (House Report No. 742, 86th Cong., 1st Sess.)

State-Local Relationships

Representation of local governments on the Advisory Commission is another major difference from the Joint Action Committee. In the hearings on establishing the Commission, former Governor Sam H. Jones of Louisiana remarked that the battle between states and local governments over program control was more difficult to resolve and "just as determined" as the states rights battle, so a forum for discussion of state-local problems "is much more important."

Part of the state-local battle relates to federal-city relations. "... This talk . . . that we have so much of from the Federal government that the states should help the cities is not only completely unrealistic but could be a disastrous thing if pursued, because . . . the states . . . will not do it . . . and even more important, they honestly cannot do it" because if they increase state taxes, industries will move out. This is the view of Philadelphia's Mayor Richardson Dilworth at the American Municipal Association 1958 conference, which focused on city-federal relations. (*Proceedings* . . .) Counties also are declaring independence from the states: in principle, "counties are no longer merely local branches of the state government" in relation to urban problems; county home rule is a cornerstone. (NACO policy statement.)

States, nevertheless, are paying more attention to local government problems. This year, sixteen governors urged legislators to seek solutions to metropolitan problems. Eight legislatures received research reports on local government problems. In California alone, six legislative committees have produced separate reports on different metropolitan aspects in the past three years, and the governor this year named a Statewide Commission on Metropolitan Problems to make a "comprehensive" study of its urban problems with "a new and fresh look" at local government structure. (Edmund G. Brown in *The Urban County Congress* (NACO, 1959).) Missouri's legislative Joint Committee on Local Government recognized: "It is true municipal and county governments can exercise local initiative to extricate themselves from some difficulties, but it is to . . . their state government that they must turn for help and guidance in a great many more cases." New York and Alaska ac-

cepted that responsibility by forming offices of local government; Cleveland's Metropolitan Services Commission admitted it by calling for such a state office.

Coordination in Metropolitan Areas

In metropolitan areas, experiments in both integration and cooperation are going on—so rapidly that the Conference on Metropolitan Area Problems is developing an index on metropolitan surveys hard on its digest of surveys published earlier this year. Five systems of coordinating government units in metropolitan areas are being attempted:

Annexation: More than one municipality in five over 5,000 population annexed territory last year, the second largest area of annexation in eleven years. Some of these municipalities were acting in advance of metropolitan problems, but nine of the largest dozen annexations were by central cities of metropolitan areas. San Diego in particular seeks to solve its growth problems by annexation and has, having acquired sixty-four square miles in the past two years.

Federation: Dade County (Miami), Florida's success last year in beating back efforts to cripple its federation-type metropolitan government has maintained interest in the experiment. After four years (in 1958), "the principle of federation" in Toronto was found by a provincial study commission to be a sound and practical approach to an acceptable and workable solution of the complex problems of providing adequate municipal services." At the same time, however, a more skeptical observer called it far from satisfactory, though doubtless an improvement over the completely unorganized governmental units that it replaced. (Eric Hardy, Director, Bureau of Municipal Research, "Progress in Toronto," 47 *National Municipal Review* 445 (October, 1958).) "... paperwork . . . has obviously increased . . . where a single municipality would suffice, a two-level system of government is top-heavy and unduly expensive." Representation and tax inequities have not been worked out yet, there is still competition for industry among municipalities within the federation without regard to the best plan for the whole area, and there are many services not yet unified, including fire protection, health, welfare, and library, which suffer

"from divided jurisdiction." Meanwhile, new urbanization fringes the federation. Unable to assimilate new members, Toronto has relied on cooperative planning and other activities with its suburbs. In all, "major problems of organization and financing of municipal services" are "unsolved." But, since "the obvious remedy—a realistic enlargement of the central city's boundaries—has been withheld so long that its application in one stroke would be painful . . . Toronto's half measure of progress is bound to look attractive." A combination annexation-federation system, the City of Baton Rouge-Parish (County) of East Baton Rouge system, now ten years old, was declared successful by a 1956 study committee, according to the Parish attorney. (*The Urban County Congress*.)

Contract: Gaining increasing interest in national discussion is the "Lakewood" plan, in which municipalities establish the level of service desired but contract with the county to supply it, providing some services themselves. Increasingly, governmental units are contracting for services with each other—cities with counties and vice-versa, suburbs with central cities, cities with other cities. After surveying inter-local cooperative agreements in New York, Guthrie Birkhead, Syracuse University, recommended reorganizing "and even broadening" enabling legislation so these devices can "play an important role in improving the status of local governments," though he has some fear that these may be stopgap measures which postpone and make more difficult the reorganization of local units that is really needed. ("Interlocal Cooperation in New York State" (New York State Department of Audit and Control, 1958).)

Special District: San Francisco appears to be using the special district most systematically for handling programs which extend across local boundaries. Bay area districts handle air pollution, rapid transit, water and sewage, and parks; districts do not all cover the same area. Regional planning agencies, a type of special district, operate in twenty of our largest urban centers, though some can only advise.

Gentlemen's Agreement: Recognition of a mutual problem may be sufficient organizing power in lieu of more formal arrangements. Most publicized of the completely powerless

assemblies probably is the New York Metropolitan Regional Council. Initiated by New York City, but with such care to avoid dominance that each participating unit has one vote regardless of size, the council has been mainly a study and discussion group but is now debating its future. A committee headed by Wallace S. Sayre, Columbia University, proposed that the council be legally instead of informally constituted but that it remain advisory with only a small staff. Luther Gulick agreed that executive powers were unnecessary—that when the council defined acceptable policies for the region, appropriate agencies could be found to implement them. (2 *Metropolitan Area Problems* 3 (January-February, 1959).) (New York has temporarily shifted attention from forms of metropolitan operation to prediction of the area's social, economic, and governmental future with the publication of the first volumes in a series of studies sponsored by Regional Plan Association.)

San Francisco Bay area mayors have initiated plans for a metropolitan council also, but a Los Angeles area study commission,

which included representatives of cities, the county, and citizens, has stalled, apparently "due, in part, to city domination . . . and to disinterest on the part of the county." (Stanley Scott, "Major Metropolitan Studies and Action Programs in California" (University of California Bureau of Public Administration, June 17, 1959).)

Six counties centered on Detroit have scored real achievements despite partisan differences (two counties Republican, two Democratic, two marginal). The Inter-County Committee began with a luncheon of three county board chairmen; it now consists of committees on inter-county relations of all six county boards, operating through five program subcommittees—roads, water, sewage, ports, and recreation. Without power to enforce decisions, the committee has successfully sponsored state legislation, initiated highway planning, moved forward on an airport plan, and developed a water supply program. (Edward Connor, "The Detroit Metropolitan Area Inter-County Plan," *The Urban County Congress*.)

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Performance Auditing Advocated

This is a proposal—for discussion—that an outside agency regularly audit the operations of the executive branch as well as the legality of its fund handling.

Review of budget execution traditionally involves at least two distinct operations by both the executive branch and the legislature: the postaudit of expenditure accounts for both honesty and legality and the executive's appraisal of operations usually resulting in an annual report.

The executive studies and appraises his performance while the operation is going forward and to a limited extent after the fact. But he is an integral part of the performance and his appraisal may not be entirely objective. Indeed, this may even be true of politically-minded legislatures. The fact is, however, that neither the executive nor the legislature provides a truly independent, objective appraisal of administrative program performance in an organized fashion.

An administrative "performance audit" outside of the legislative and executive branches could answer many questions. Was the budget contract between the executive and the legislature fulfilled? How did the quality of work relate to recognized standards? Was program planning accurate? Were public funds intelligently and prudently spent? How much performance or work actually took place in each budget program?

It is true that the executive is responsible for these questions and with proper management tools can *in part* soundly reply. But his answers, although competently and conscientiously substantiated, are prepared by the performers themselves. It is practically impossible for them to appraise their performance objectively just as it was impossible for

them to audit their own accounts. Consequently, it is difficult for the executive, the legislature, or the citizens to obtain an unbiased appraisal of budget performance except what can be observed in an unorganized fashion by the citizenry and the legislature, both with limited information.

In performance budgeting, control is not by the legislature's advance judgment of how many items of particular cost should go into program execution but rather by agreement with the program director that, with a specified budget, a specified amount of program will be produced. Thus budget execution becomes a more important part of the cycle, since the mechanical comparison of expenditures on line items must be replaced by the more subjective analysis of what constitutes program achievements.

Budget specialists have developed excellent devices to estimate budget requirements and to administer the budget. Furthermore, the quality and honesty of public administration is probably at the highest level of excellence in history as the result in part of these techniques. Could not the public administrators and legislatures use a further device which would go farther than the audit of accounts? An independent performance audit would be an invaluable citizen's appraisal both of the executive performance and the legislative program.

This is far from a new thought in government. President Eisenhower has repeatedly called upon citizen committees to appraise policy and administration in certain fields of national government. Recently the Mayor of St. Louis designated a citizen committee to appraise the expenditures pursuant to the recent largest bond issue in St. Louis city history. Last year, too, Peoria, Illinois invited

five personnel directors of local industries to evaluate city personnel practices.

The city manager of any city large or small is familiar with the unorganized audit of work constantly in progress in his municipality. He also knows its immense value to the council and the manager. Why not organize it? This citizen action can help make public administration more public if organized into an independent "performance audit." The call for this improvement in public administration should come from public administrators themselves as an advancement in the art of democratic administration.

There are many forms this performance audit could take. It is important, however, that it be as independent as possible of both the executive and legislature. The personnel reviewing and appraising the performance should not be on the public payroll except for actual expenses or fulltime professional personnel.

At the municipal level they could well be designated by the city council to represent all phases of community life. At the state and federal level, they might consist of past governors or past presidents acting as a committee and supervising fulltime professional staffs. All factions should be represented in the audit such as were represented on the Hoover Commission. The method of appointment of the Hoover Commission seems very appropriate. Although the cost need not come from the government, it should be assumed if necessary.

The fulltime professional staffs would permanently serve under the person or committee responsible for the performance audit. They

probably should have tenure and career status. They would have access to all records in the government, appraise improvements, establish and maintain performance standards, appraise actual performance along with performance contracts between the legislature and the executive, and analyze trends in programs and performance. Their reports should be published and supplied to the executive, the legislature, and the public. In the small city, the professional staff could consist of no more than one good budget expert.

While much of this function could be served by private taxpayers research organizations, their interest has been mainly in cutting taxes.

No professional public administrator should be satisfied with a simple independent audit of his accounts. Nor can he rely completely on unbiased appraisals by his staff who are an intimate and integral part of the administration itself. The legislature's involvement in the policies and the politics of programs does not insure its independent judgment of performance or of program costs and needs. Along with an independent audit of accounts for fidelity and legality there is needed a completely independent performance audit of the budget expenditures and performance after the completion of the annual budget execution, primarily to relate the budget contract to actual program performance.

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PROGRAMING RESEARCH—LINEAR OR CIRCULAR?

PROGRESS in our understanding of public administration depends upon research resources. These are now in short supply and there is no prospect that they will soon become abundant. Their prudent investment, then, is critical. The resources available are principally the time and energy of thoughtful men and women, both in universities and in governments, who are consumed with curiosity and qualified by training and experience to carry through an inquiry to the point where findings are communicated to interested members of the profession.

Creativity is peculiarly individual, but the resources of time and energy can be more prudently invested if those who possess them are forewarned of avoidable wastes. For this kind of investment counseling, editors of professional journals feel a special obligation that grows from their special opportunities. Across the desks of the editors of this *Review* pass many manuscripts for consideration, books for possible review, and other journals that relate to public administration. Our delight at the distinguished work we are privileged to see is qualified by our concern at the frequent misdirection of precious talent.

Much of the waste reflects inattention to Alexis de Tocqueville's counsel that "the art of administration is undoubtedly a science, and no sciences can be improved if the discoveries and observations of successive generations"—or, we would add, of successive writers—"are not connected together in the order in which they occur. One man in the short space of his life remarks a fact, another conceives an idea; the former invents a means of execution, the latter reduces a truth to a formula; and mankind gathers the fruits of individual experience on its way and gradually forms the sciences."

Though writing a manuscript is an individual act, it cannot contribute significantly if it is isolated from awareness of what others have done and how they have done it. Yet isolation of effort is surprisingly common. Familiar ground is often retread by some who, relying on observation alone, are excited to

discover a perhaps incisive correlation—which has been discussed in text books for several years. It is retread by others who, though much taken up with study and experiment, cut themselves off from whole blocks of significant and relevant contributions and conclude by claiming as discoveries what are only earlier findings under new names—conclusions ready at hand in the deliberately neglected portions of public administration literature.

Particularly regrettable is the serious study filled with fascinating data that answers nothing—because no questions were asked. A man imprudently uses his talents if he does not probe with genuine curiosity questions both he and others recognize as significant for a better understanding of administrative processes, indeed for a better control of them. Again, he must start with others' work, confirm or disprove its findings, fill critical gaps, pose new questions, or rearrange the priority of old questions. What Tocqueville was talking about in 1835 we today would call the imperative of making research "additive" or "cumulative" so that the cutting edge is constantly pressed forward against the critically central problems of public administration. A feel for the jugular is necessary to identification of these central problems, but even such a feel comes partly from identifying and questioning the key assumptions of leading students of a subject.

A natural or physical scientist writing of his research in a professional journal typically starts by summarizing what other scientists have done on the same problem, while the balance of his article reports his own research and indicates in what ways it modifies the prior state of knowledge. We may not find the style of presentation appropriate to our more varied accounts of experienced, observed, and speculated-about reality. But by thinking in this way, students of public administration might make their own research investments more productive.

JAMES W. FESLER
Editor-in-Chief

Index

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